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THE TIMES NEWSPAPERS  
LIMITED, 100  
200 Gray's Inn Road, London WC1X 8HZ, England  
Typeset by Computer Graphics Ltd, 37 Al. Comp.  
Mans., London E14 3JF, and printed by Northampton  
Printers, 10, 11, 12, Upper Maunton, Northampton  
NN1 2AE, England. Telephone 0603 7101. Registered as a  
newspaper at the Post Office, 1939 (142) 929.



HIGHER EDUCATION SUPPLEMENT  
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## Policy self-analysis

Higher education has always been reluctant to study itself. In one sense perhaps excessively self-regarding and occasionally self-protective, in another it seems uninterested in even bored with itself. The solitary chair in the subject, at the University of London Institute of Education, has long since passed into disuse. The study of higher education is now sustained by a small and sometimes quarrelling alliance of a few entrepreneurial professors in other disciplines who have built up a stake in the subject, the beleaguered group of those who do have a mainstream academic interest in higher education, those with a direct responsibility for administration whether at the level of national agency, validating body, or local institution, a few more enlightened representatives of special interests, and one or two amateur policy enthusiasts.

Yet the need for sustained and sophisticated analysis of higher education policy has never been greater. Hardly a month, hardly a week, passes without some decision or new development which may radically influence the future shape of the system and so the pattern of higher education it can provide. Yet too often they are based on inadequate information, superficial analysis of the available options, and unsubstantiated research into the likely outcomes. It is difficult to escape the conclusion that many very important decisions about higher education are taken on a basis that would be quite unacceptable if academic judgments in traditional disciplines were involved. In higher education policy we are walking in the dark, making it difficult to distinguish solid features from the shadows of our own prejudices.

The result is that, although many thousands of words, many of them hot, have been spoken or written on policy choices like the University Grants Committee's selectivity strategy of July 1981, or local government's future stake in non-university higher education and the new National Advisory Body, or the relative advantages of student grants and loans, the really important questions in all three instances are no nearer a satisfactory answer.

What will be the medium and long-term effects of the UGC's decision to go for "unequal misery"? Will it lead to a stratification of the

system into research universities, research-and-teaching universities, and teaching universities, something the UGC has always denied was its intention? If this did happen what would be the consequences for both the public reputation and the academic productivity of the universities? The sad and uncomfortable fact is that we know no more than we did in July 1981. Probably the UGC is equally in the dark.

A similar point can be made about the two-year wrangle about models A (continued local authority control of the polytechnics and colleges) and B (effective nationalization under a central UGC-style quango) and the eventual emergence of the NAB. Are local authorities a drag on the efficiency and creativity of the polytechnics and colleges, or are they a guarantee that more popular and more relevant patterns of higher education will be maintained and protected from plunging down the quasi-university cul-de-sac? We do not properly know, although heavy barrages of opinion and anecdote were laid down by both sides.

Higher education at present does not have the means to provide sophisticated answers to such questions. It is simply not realistic to expect the often uncoordinated efforts of individuals working on highly specific research programmes, of voluntary self-financing institutions like the Society for Research into Higher Education, and of fixed term inquiries like Leverhulme, to do the job. The resources they command are plainly inadequate.

But there is a prior problem. Before higher education can equip itself with the proper means to do this job, it must be convinced that the job needs to be done. At present there are two obstacles. The first is the belief that what universities, polytechnics and colleges need is an enhanced capacity not for policy analysis but for more aggressive political lobbying. Whether this lobbying should take place in the House of Lords or on the streets is, of course, another question but for the purposes of this discussion a secondary one. The main flaws in this belief are always requires more sophisticated research and analysis as ammunition in argument, and that higher education does its cause no good by acting

as if its value is self-evident and no one else's business when quite plainly it faces choices as difficult and in which the public interest is as much engaged as any other traditional institution.

The second obstacle is the prejudice that the study of higher education is part of social science, which is bad enough, and, worse still, a sub-sector of the discipline of education which enjoys low academic prestige which in turn no doubt reflects the value British culture places on teaching. This prejudice often takes the form of a myopic underestimation of the study of higher education (the SRHE is unfairly stigmatized as being all about "chalk and talk"), just as one former vice-chancellor regarded detailed higher education policy as "something for the registry" or rather more positively of a demand for the development of policy analysis in general rather than confined to higher education.

It might be possible to have sympathy for this last view if the attempt to establish a "British Brookings" had not suffered the same process of denigratory attribution. In its final scaled-down form as the Technical Change Centre this institution is hardly likely to become involved in the study of higher education except in the most peripheral way. Similarly the Policy Studies Institute, chronically dependent on "soft money" and so a servant of special interest research is unlikely to move far into territory that is politically unpopular, financially barren, and the inhabitants of which seem largely uninterested in the very idea of policy self-analysis.

The wisest course is to have modest and realistic ambitions, while continuing to press the case for improved capacity for the study of higher education policy. But it is surely not too ambitious at a time of great turmoil, even crisis, in higher education when the familiar contours of the landscape laid out by Robbins and Crossland in the 1960s are becoming more and more obscured, to suggest that a unit for the study of higher education policy should be established, properly and securely funded by the DES, UGC, NAB, CNA and any other agency or institution with a pressing interest in the difficult choices that must be made in the 1980s.

## The roots of culture

Yet such statistics alone cannot cancel out that shrug of ignorance from the city centre shopper when asked the way to the university. Universities may have maintained, even increased, their contribution to the culture of their cities, in the first restricted sense, but in a broader Hogartian sense they have long since retreated from any obligation to sustain civic culture. Gown triumphed over crown long ago.

Of course, some will say that Professor Crick, being far too fair to the cause of the polytechnics, has been too much taken in by the council agenda from time to time, occasionally painfully, some polytechnics have links with their local community similar in kind and quality to the universities. The trouble in both cases seems to be that the very large number of detailed links, which are likely to grow with the increasing importance of continuing education and its time higher education, do not add up to a coherent total relationship which then those directly involved in the vigorous trading between institution and community. Perhaps to some extent this total relationship is an un-realizable myth, or the little more than the triviality of custom. If the city centre shopper is more likely to

be able to direct you to the "poly" than the university it may mean very little. Nor are polytechnics necessarily typical of the non-university sector. Many colleges, after all, have quasi-monastic traditions which until very recently demanded a degree of isolation from the community which would have regarded as unnecessary. Some will even say that Professor Crick is being sentimental; that civic dying in a consumerist, high-technology, McLuhanesque world; that it cannot be recalled with its old force any more than trans or totalitarian; and that higher education is one of the key instruments of modern society cannot afford to pay much attention to such unprofitable nostalgia. Perhaps. Utopianism has always had its reactionary as well as its futuristic aspect, but it does not lose its value for that reason. Higher education has probably become too much a part of conferences on green fields campaign of good public relations. Too set in its face against the affective, but still authentic, values of community in its pursuit of the cognitive, but maybe also amoral and even depersonalized, values of rationality.

Laurie Taylor



## Appointments

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# The Times Higher Education Supplement

January 14, 1983 No 532 Price 45p

## Target failures answer UGC back

by Sandra Hempel and Olga Wojtas

Universities accused of admitting too many students have stood up to criticism from the University Grants Committee, which met yesterday to consider their case.

Five of the small group involved have replied by merely restating their difficulties, already known to the UGC, and two have added that if their planning problems would be made easier.

The UGC wrote to Bradford, Dundee, Heriot-Watt, Hull, Keele, Salford and Swansea on December 10 asking for comments on last autumn's intake of students by the first week in January. The committee said it doubted that these universities would be able to achieve their 1984/85 targets.

The greatest culprits are Dundee and Heriot-Watt whose admissions were more than 10 per cent over target, followed by Keele, Salford and Swansea.

Bradford, which admitted 41 students over its 1,020 target in 1982, reminded the UGC that 70

per cent of its courses are for four years and that it will not, therefore be able to reach its target by 1984/85.

"The university has always stressed that its student numbers will exceed the target by 200-250 in 1984/85 but will reach the target by 1985/86", the UGC has been told. "Our intake in 86", the UGC has been told, "will be less than 1982/83 exceeded the planned intake by less than 5 per cent and will not jeopardize student number targets being achieved by 1985/86".

Keele, similarly, has told the UGC that it appears to be over target because it has a large number of four year courses. "We don't anticipate being significantly over the target figure by 1984/85", an spokesman said. "We have reminded the 1984/85, a spokesman said, "We have reminded the university secretary, said the UGC had recommended no changes in intake in medicine and dentistry, and so the cut had to be borne by science and arts."

Hull believes that the UGC was looking at its October intake and expecting this figure to go up by around 30 over the following three months because of late admissions. "In fact our total intake by December at 1,457 was only one or two higher than that in October," the university said.

## Survey backs pay claims

by David Jobbins

Graphic evidence of the bleak prospects for thousands of college lecturers is to be presented to management and union negotiators next week.

A survey hearing into union claims that many staff are stuck at the top of the Lecturer 1 grade has been prepared for Monday's meeting of the Barnham further education committee review group. Union negotiators will use it to support their claim for radical reform of the salary structure for staff teaching largely on non-advanced courses.

But the employers are equally likely to claim that such a gap would reduce further education's competitiveness with the manpower services Commission skill centres and private sector training establishments. They want to introduce a new grade of supervisor below the existing lecturer scale to reduce costs - a move being strongly resisted by the teacher unions.

The case for far-reaching structural changes was referred to the review group after the Wood arbitration, but the employers lodged a fundamental critique paying particular attention to "academic drift" and its effect on pay scales. The employers alleged that advanced work was moved from lecturer to lecturer or salary rather than educational or management reasons - a claim rejected by the National Association of Teachers in Further and Higher Education and by the college principals.

The survey shows that of a sample of more than 3,000 staff of all grades, 10 per cent of L1s on the top of the scale had been there for 15 years or more. More than half the L1s in the survey had been appointed on the top four salary points, no less than 31 per cent of them starting their careers at the maximum, currently £9,268.

The LI scale was extended upwards by one point in 1979 but this merely provided some compensation for older L1s. Last year's salary settlement was heavily weighed to give extra compensation but union negotiators argue that the only solution is to remove the barrier.

University unions' hopes for simultaneous submission of the 1983 salary claim have run into difficulties.

Negotiations on key structural points of the manual workers' 1982 claims have yet to begin although a salary settlement was reached in the summer. But union leaders are insisting that the discussions should be completed before the 1983 claim is lodged.



Students who fear that High Wycombe, Buckinghamshire has become a prime target for nuclear attack have taken the lead in establishing a permanent peace camp at the gates of Daws Hill United States Air Force base. The base is the Americans' full-back European war headquarters and is also said to be the planned centre for Cruise missile control and guidance systems.

Passers-by seem to be generally sympathetic to the protest, but base personnel have been warned not to speak to the campers. A national day of action is scheduled for January 29.

## Academics back British economic policy centre

Leading academics have backed a proposal to set up a new British economic policy research centre to project British economics on to the international stage.

The scheme is already well advanced with crucial financial, administrative and academic support guaranteed by the Social Science Research Council, the Rockefeller foundation, the Esmeé Fairbairn and the Leverhulme trusts, and Chatham House.

The centre is the latest attempt in a series dating from the 1970s to establish a prestige policy centre in Britain matching those found in America and Europe.

The centre would follow the Chatham House model. It would involve 40 to 50 eminent economists as associate fellows appointed for three-year renewable periods, probably a three-year term. There would be no full-time or tenured fellows, and about a third would be under 35. A financial target of close to £1m has been set up to cover overheads for the first five years, plus a longer term endowment target of about £4m. The proposers are still looking for more support.

A call for higher standards and more involvement of commerce and industry were among eight suggestions for the improvement of further and higher education in Sir Keith Joseph's speech to the North of England Education Conference.

Sir Keith, Secretary of State for Education, told the conference: "Across everything there must be higher and more consistent standards. I make no sweeping criticisms, but we cannot be confident. Perhaps in higher education we need a more developed system of external examinations; perhaps there are advances

to be made in the practices and approaches of validating bodies."

He said he would like to see more influence exerted on the curriculum by industry and commerce, although he conceded that much of further and higher education already had a satisfactory record in this respect. Although the Government could help, it was up to the heads of institutions and departments to make further progress.

Sir Keith's eight points for the conference, held last week in Liverpool, were headed by the need for more variety. "There is a tendency to convergence even in subjects with great scope for differences of approach," he said. "Teachers are the chief change agents for the development of a wider range of curriculum."

Better information for students and potential students; further opportunities for "education long"; the development of distance learning; better provision for young people of modest ability who stay in full-time education beyond the age of 16; and the replacement of Sir Keith's existing staff completed Sir Keith's list. There was a risk of stagnation in parts of higher education in spite of the Government's "new blood" initiative, he said.

## Challenge to Marx scholars

from Paul Flather

Painstaking detective work by a Dutch academic threatens to disturb more than 30 years of Marxist scholarship by challenging some of the humanist philosophical roots ascribed to the work of the young Karl Marx.

The researcher has confirmed that the 1844 *Paris Manuscripts* kept in the Amsterdam institute where he works and first published in 1932 are nothing more than a collection of working notes and rough ideas.

Mr Jürgen Rojahn presented some of his findings last week to an international conference of labour historians led in Linz, Austria, to mark the hundredth anniversary of Marx's death. It was the first of some 30 international conferences this year.

The findings could be a serious blow to the work of Marxists such as Erich Fromm and Herbert Marcuse who used the ideas of alienation and human essence to underpin their theories. For orthodox Soviet Marxist-leninists they will be welcome ammunition against Hegelian-style Marxism.

Professor Eric Hobsbawm, emeritus professor of economic and social history at Birkbeck College, London, who attended the conference, described the findings, if true, as "nothing short of a depth charge in the world of Marxist scholarship".

Mr Rojahn was alerted to the *Manuscripts* in 1974, and was puzzled to find that the pages were often torn and in random order. After careful scrutiny of page size, page numbers, Marx's writing, and number of columns used, he concluded they were never formally published by Marx, and should probably have no formal status at all.

Mr Rojahn makes modest claims for his research, but the findings stirred passions at the conference. A West German historian claimed that after all the affairs of 1988-89 they could now "set up a dam that can really hold up the flood" of humanist Marxism.

Russian members of the Marxist-Leninist Institute of Moscow, which holds most of Marx's papers, ironically missed the point.

Russian members of the Marxist-Leninist Institute of Moscow, which holds most of Marx's papers, ironically missed the point.

Mr Rojahn said he had more work to do and did not like the competition between East and West although he found the work very exciting.

British academics thought the papers could have interesting ideological effects but the main thrust of Marx's ideas would not be severely undermined.

Leader, back page

## Sir Keith calls for more consistency

by John O'Leary

A call for higher standards and more involvement of commerce and industry were among eight suggestions for the improvement of further and higher education in Sir Keith Joseph's speech to the North of England Education Conference.

Sir Keith, Secretary of State for Education, told the conference: "Across everything there must be higher and more consistent standards. I make no sweeping criticisms, but we cannot be confident. Perhaps in higher education we need a more developed system of external examinations; perhaps there are advances



## News in brief

## Unions plan joint demo

Unprecedented cooperation across the binary line is at the heart of a new campaign on post-school educational opportunities launched by lecturers' unions, other campus staff and students.

The Association of University Teachers and the National Association of Teachers in Further and Higher Education have joined with other campus unions and the National Union of Students to promote a nationwide petition seeking increased investment in all sectors of further and higher education.

It will be presented to the Prime Minister on March 9, following a mass demonstration in London and a lobby of Parliament which organizers hope will have at least the impact of the action taken by university lecturers in the autumn of 1981.

## Police investigate college accounts

West Yorkshire Police are investigating the accounts of Thomas Dunby Further Education College in Leeds, following reports of discrepancies understood to amount to several thousand pounds.

Leeds City Council's education department, who asked the police in, have also asked them to investigate the disappearance of the college's acting registrar Mr John McDonald, who has not been seen since about the time police and council auditors' inquiries began. Mr McDonald was appointed to the college as assistant registrar about a year ago, and has been acting registrar for several months.

## Inspector called in

Miss Sheila Browne, Senior Chief Inspector of Schools, is to become principal of Newnham College, Cambridge when she leaves the Department of Education and Science in August. Miss Browne will succeed Mrs J. E. Floud who is retiring.

## City aims at City

The City University in London has launched an evening MBA course claimed to be the first of its kind to be offered outside working hours. It is aimed at managers and professional people. The two year course, which begins in February consists of a core of eight management disciplines basic to all business followed by a second stage of special areas.

## Noise rebate

Students disturbed by noisy repair work on their residential tower block have won rent rebates of £100 from Birmingham University.

The university had hoped that work on the 17-storey tower block would be completed by the end of the summer vacation but a spokesman explained that more extensive repairs had been necessary. Although workmen were still on site, the noise nuisance had now ceased, he said.

## Deputy named

Dr Malcolm Godfrey has been named as the new second secretary of the Medical Research Council, where he will serve as deputy to the secretary, Sir James Gowans. Dr Godfrey is currently dean of the Royal Postgraduate Medical School, London and chaired the University of London's Joint Medical Advisory Committee on restructuring within the university.

## Rents 'too high'

Glasgow students are preparing to go on a rent strike, withholding this term's hall fees of £32 following a referendum where 79 per cent said rents were too high.

The students say Glasgow's accommodation fees are the highest of any Scottish university, and that students on a full grant are left with just over £15 a week for all their expenses.

## Grants cut for 12 colleges

by Patricia Santinelli

Twelve voluntary colleges mentioned in the auditor general's report as having received grants in excess of expenditure, have already had their allocations reduced, according to Department of Education and Science sources.

The report by Mr Gordon Downey, comptroller and auditor general published last week questioned whether the DES had adequate control over the funding of the 26 voluntary colleges.

Mr Downey says that an investigation by his staff into the cash balances held by some grant aided institutions on March 31 1981 revealed that at least three voluntary colleges had excessive balances.

In spite of assurances from the DES that control would be tightened,

a further review on March 31 last year showed that 12 colleges now held balances in excess of 4 per cent of their net annual estimate. In eight cases this exceeded 11 per cent.

Sir James Hamilton, permanent secretary at the department, is to appear before the Commons Committee of Public Accounts next month when it intends to question him on the matter.

It is likely that Sir James will tell MPs the report is based on a misunderstanding created by changes introduced in 1981 when funding ceased to be based on the academic year but moved instead to a financial year basis.

Many colleges are thought not to have understood that the flexibility which existed under the academic year funding, whereby unspent grants could be carried over into the

next year, would no longer apply in a financial year system.

Sir James is also bound to refute the report's veiled claims that nine voluntary colleges increased their monthly application for government grant from £2.5m to £3.8m only after they had been warned by the DES that unspent allocations of £5.2m could not be claimed after March 31, 1982.

In fact the DES has already made clear that it believes its letter to the colleges and the subsequent claims that it granted were purely coincidental.

The department has said the letter was intended to check that the grants would indeed be underdrawn, as well as to dispel uncertainty about the availability after that date of grant allocated for the period up to March 31 1982.

## Sports teams ask for funds

by Felicity Jones

British competitors who are in the process of being selected for the world student games may not be able to compete in Canada this summer unless more funds can be found.

In the past, the organizing body, the British Students Sports Federation, has had enough money, largely thanks to an anonymous donor, to cover the cost of sending all its team with only a token contribution from competitors.

But this year the distance to Edmonton and the poor currency exchange rate mean an additional £300 has to be found for each student on top of £50 personal contribution. The organizers expect about 80 students to be selected to take part in 11 sports, so team managers would need to find £24,000.

Mr Mike Gee, secretary of BSSF, said they had so far failed to find an overall sponsor and they were very short of money, but would wait until the end of February before taking a decision. Swimming and athletics will definitely be represented although the size of the team will depend on how much extra money can be found by the squad managers and students.

"Rather than debut students who have not got the money themselves, we have decided that if the best fencer, say, has not got the money then nobody in that team will go," said Mr Gee. "There will definitely be some people who won't be able to go to Canada but we will send at least a small team since this is the first time the games have been held in the Commonwealth."

The athletics team manager, Dr Nick Whitehead of Leeds Polytechnic, said he had approached dozens of possible sponsors with no success. "The sad thing is that it looks as if we will only be able to take 10 athletes when there will be at least 20 of sufficiently high standard who would go," he remarked.

Brighton Polytechnic has launched an appeal to £1,000 to send 10 students. Three students, cyclists Craig Wilson and Robert Kennison and captain of the volleyball team, Allison Baldry, have already been chosen to take part. The swimming selector Bill Seddon said it would be hard to tell people they could not go even though they had been chosen.

"It is the same old story of sportsmen and women, selected to represent their country at the second biggest event after the Olympics, being expected to pay their own way," he said.

The BSSF ruled out the possibility that students who could afford to pay more would get preference over the best qualified.



## Lectrice ruling angers union

An official for the Association of University Teachers in Scotland has hit out at a tribunal decision rejecting a claim of redundancy and unfair dismissal from a French lectrice at St Andrews University.

Dr David Bleiman, above, regional official for Scotland and the north, said: "It is surprising that an industrial tribunal can find that after seven and a half years of continuous employment a lectrice is still in a temporary post."

The tribunal found that Dr Blackbourn's series of fixed term appointments was not an attempt by St Andrews to disguise a permanent post, since it accepted it was normal practice for language assistants to be employed for only one or two years.

However, said Mr Bleiman, the tribunal's decision did not set a precedent. He stressed that both the tribunal and St Andrews University had recognized that Dr Blackbourn was a valuable employee whose competence was never brought into question.

## Stamina test for the retired

Physical, mental and spiritual fitness are the three components of a Duke of Edinburgh-style award scheme proposed for retired people by an adult education officer in Northumberland.

Mr Roy Berrill's brief has brought him into contact with youngsters doing the conventional awards and He has attracted some interest in education journals and among voluntary groups for the elderly - notably Age Concern.

The idea occurred to him some time ago when he noticed that people who retired both early and at an normal age were at a loss for ways to occupy themselves. Mainstream adult education classes were not enough because they only concentrated on one skill rather than a range, he decided.

Instead he has proposed five aspects, four of them - hobbies, physical fitness, community service and exploration - directly related to the Duke of Edinburgh scheme. The introduced because he said: "In later life it is not unusual for people to become as concerned with the spiritual as the physical and mental."

## Deadlock over lease poses threat to centre's new home

Plans to provide a new home for the Intermediate Technology Development Group at South Bank Polytechnic are under threat as a result of a last minute deadlock over the lease.

The ITDG is an educational charity mainly concerned with technology and third world development. It launched an appeal two years ago for larger premises than its present ones on Covent Garden, where it suffers from shortage of space and rising rents.

It elected to spend the £200,000 raised for the new Schumacher centre - named after the late E. F. Schumacher, author of *Small is Beautiful* - on a vacant building offered by the Polytechnic of the South Bank.

The group originally planned to move in this month and plans for

alterations to the building, left vacant when South Bank's polymer engineers moved to North London Polytechnic were well advanced. The Inner London Education Authority believed it held the freehold for the site, which is part of a complex set of overlapping titles.

But they found later that Bridgehouse Estates, a property company run by the City of London, owned the plot involved. The company said the alterations to the building would mean a large rent increase which the ITDG cannot pay.

The ITDG had planned to house a new advice service for small businesses and exhibition space as well as its existing activities.

However negotiations are still going ahead and Mr Maxwell Smith, the polytechnic's assistant director, said he was optimistic.

## BTEC appoints chief executive

The first meeting of BTEC, the body formed from a merger of the Business and Technician Education Councils, appointed Mr John Sellers, chief officer of BEC, as its chief executive this week.

BTEC's council also appointed Mr David Mitchell currently chief officer of TEC as its director of education, and Mr John Sheffield, chairman of BEC as vice chairman. No policy guidelines are to be issued yet.

## Unions spar over employment rights

by David Jobbins

Claims that the largest college lecturers' union signed away its members' rights in key areas of employment law are likely to rekindle the fierce dispute with its non-TUC rival.

The 3,000 member Association of Polytechnic Teachers made the allegations this week when it published its own guidelines on local negotiations conditions of service. The APT is barred from the National Joint Council where conditions of service are negotiated by the local authority employers and the 74,000 strong National Association of Teachers in Further and Higher Education.

The APT claims that the national agreement reached in the NJC gives lecturers less than their existing entitlement under employment law. It accuses Nafhe of being responsible.

The areas include: Termination of employment - the APT says that employees with more than 12 years' service are entitled to three months' notice, but the national agreement gives only two for staff leaving in the spring and autumn terms.

Maternity leave - the APT claims that a lecturer may lose her rights under law if she is absent earlier than 11 weeks before confinement, even on medical advice.

Time off for trade union duties - the APT claims that general rights under employment legislation are not specifically included in the agreement.

The union also claims that the agreement removes a lecturer's right to confidentiality by giving Nafhe access to individual timetables. It challenges the right of the management side of the NJC to make decisions on union recognition.

Each count is likely to be contested fiercely by Nafhe, which will argue that the period of notice is relevant only to staff who choose to leave and who will prefer having a shorter period to enable them to take up a new appointment at the beginning of the next term.

The APT is seeking one year's notice of intended redundancy and time off for trade union activities for its members.

## SSRC staff walk out over plans to cut 30 posts

The dispute at the Social Science Research Council escalated this week when 120 staff walked out. Some staff at the Science and Engineering Research Council said they would black work transferred to them from the SSRC.

Staff this week picketed the SSRC headquarters in central London and urged all callers, including academics arriving for the current round of important subject committee meetings, not to go in.

The strike began officially on Wednesday morning. It followed a meeting of the finance and general purposes committee which endorsed plans to cut 30 posts out of 146 over three years from next April.

Mr Jim Terry, divisional officer of the Association of Scientific, Technical, and Managerial Staffs, one of four unions involved, said the staff had paid for recent cuts losing 14 posts last year.

He said the strike would only be called off if the proposals were totally withdrawn and a joint working party established to look in detail at

the SSRC budget and a new programme of cuts. The strike will last at least until the SSRC council meets next week.

Mr Michael Posner, the SSRC chairman, said that a skeleton service including postal and telephone services would be maintained by the management. "We are very very sad to be quarrelling with our friends. But it is essential the SSRC puts its house in order. We have had cuts of 30 per cent while I have been chairman and we are having to do harsh things," he said.

The unions are particularly bitter because a disproportionate amount of the savings are being found from staffing. They claim the Government-imposed cuts have not been properly resisted and that a strongly worded union submission has been largely ignored.

Members of the Society of Civil and Public Servants based at the SERC in Swindon have now decided to black work transferred from the postgraduate awards division of the SSRC in London.

## Leeds loses marine labs

A campaign led by Treasury Cabinet Minister Mr Leon Brittan has failed to stop Leeds University closing its marine laboratories.

Mr Brittan, MP for Cleveland and Whitby, who as a leading monetarist is committed to public spending cuts, said his opposition to the sale was on the grounds of the valuable work done by the laboratories. He was not opposed to university economies.

"The laboratories are a unique facility," he said. "I think the university should have kept them and found its economies elsewhere."

Mr Brittan said the fight would now concentrate on making sure that the premises continue to be used for educational or cultural purposes. The university has said it would prefer it

to continue as a research or education centre but if not it will be converted, probably to a restaurant, shops or housing.

The laboratories are estimated at being worth at least £50,000 to a buyer wishing to convert them and at around £100,000 as laboratories. The hostel is worth around £40,000 - £50,000 for conversion to flats or terraced houses and about £70,000 as student accommodation. The work-shops and the land they stand on would fetch around £20,000.

Details have been sent to the National Trust and the North Yorkshire County Council and there is some local support for a maritime museum on the laboratory site.

## Backing for economics centre

continued from front page

for £4m over five years before the scheme can get under way. It expects to earn up to £700,000 a year in research grants.

The scheme has won support from the SSRC's economic affairs committee and research board, and goes before the council next week.

The SSRC's stake, conditional on the rest of the funds being raised, is understood to be about £300,000 over five years.

The proposal was originally put together by Professor Richard Portes, an American professor of economics at Birkbeck College, London University.

Professor Portes said British eco-

nomics had great strengths and excellent people, but often with limited exposure and impact. "The centre will aim to represent British economics to its full capacity at the international level," he said.

Other reasons given for creating the centre is the need for academics to collaborate; the need for research on a large scale; and the need to bring policymakers and researchers together more.

The main research programmes are likely to be: international macroeconomics including exchange rate policies; financial markets and fluctuations; international trade and industrial organization; international comparisons of economic structure and institutions.

## HMI modifies course proposals

by Patricia Santinelli

Her Majesty's Inspectorate has had to modify its ambitions to increase the length of postgraduate teacher training courses to 44 weeks.

In a paper on the content of initial teacher training published this week it recommends that Postgraduate Certificate of Education courses should be increased to 36 weeks, one month more than the current average of 32 weeks.

The inspectorate is believed to be unhappy at the need for compromise which emerged after consultations on an earlier version had been presented to the Advisory Committee for the Supply and Education of Teachers and circulated to other interested bodies.

The HMI's earlier decision to recommend a 44-week PGCE, which

would include 18 weeks in schools, reflected their belief that courses are not long enough to train teachers well. The HMI felt it was particularly important to extend the PGCE as a boom in primary teacher training is expected.

The inspectorate has not changed its recommendation for a four-year BED and BA/BSc with concurrent training. It also proposes that PGCE students should spend at least 12 weeks full time in schools, while those on BED courses should spend 15 weeks.

Other recommendations made in the earlier version have survived. They include ensuring that at least two years is given to the content of teaching subjects in BED.

It reiterates that students selected for training directly from full-time

education should be encouraged to take time off before starting a course.

These recommendations are likely to carry more weight if ACSET, which met this week, agrees advice to the Secretary of State for Education on how initial teacher training might be improved.

Earlier drafts put forward by an ACSET sub-committee contained two recommendations which have survived in the final paper. Those were for the Secretary of State to establish criteria for deciding whether to approve initial teacher training courses.

The second recommendation is for the re-establishment of professional committees and delegacies with fresh guidelines and with constitutions approved by the Secretary of State.

## Principal meets split department

by Olga Wojtas

Scottish Correspondent

Disagreement over the running of Edinburgh University's physiology department came to a head last week when the university's principal held a meeting of the department's staff.

There has been conflict over the way the department is run for some time and further problems arose at the end of last session when the health and safety executive became concerned about overcrowding in the workshop. The head of department, professor William Watson, decided it should expand into the library area, and the library move to a smaller room.

Many staff complained there had not been enough consultation, and after a majority vote called for Professor Watson to give up his headship. When he refused staff approached the dean of the medical faculty who told them the dispute was internal and should be solved within the department.

The principal, John Burnett, who spoke to all the staff at the meeting and then talked to two readers and two senior lecturers, said there was no formal grievance procedure in train at present. "Some months ago the department got itself into a great tizz and did take formal action," he said. "If we have personality problems, it takes a long time for people to settle down."

Edinburgh's Association of University Teachers is seeking a meeting with Dr Burnett to discuss the matter.

## Ralf loves and leaves the LSE

Professor Ralf Dahrendorf said this week he would not seek reappointment as director of the London School of Economics when his 10-year term expires in September next year. There has been speculation that he may return to political life in West Germany.

In a letter to Sir Huw Weldon,

chairman of the LSE's court of governors, Professor Dahrendorf said: "It is quite conceivable that I will regard my LSE years as the happiest of my life. The directorship of the school has given me more satisfaction and pleasure than any post which I have held. I shall forever love the LSE."

## Germans seek British links

West German academics and civil servants are seeking closer links with British universities, polytechnics and colleges to allow students from the two countries to join integrated courses with full credit towards their degrees.

The British German Mixed Commission secured agreement last month on a joint seminar to compare developments at British polytechnics and German Fachhochschulen and explore the possibilities for further collaboration. Although university representatives were involved in the discussions, the exercise will not be extended across the binary line.

German representatives at the meeting also expressed concern about the distribution of visiting Lecturers and the absence of in-service training for teachers of English. A further bilateral meeting will consider ways of ensuring that Lecturers are sent to the most suitable university or polytechnic, while the Department of Education and Science will try to provide in-service facilities.

The British section, led by Sir John Burgh, director general of the British Council, secured an important guarantee for students on exchange in Germany. In future, they will receive free health treatment, saving them about £15 a month.

The Mixed Commission is one of many organized by the British Council under the various cultural conventions signed with other countries.

Leader, back page

## Travel



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## North American news

## Doctors need general cure

from Peter David

WASHINGTON

American doctors need better general education and less emphasis during their training on specialized clinical skills, according to a report by the American Medical Association.

The report says many medical schools have begun to increase requirements for education in a specialized area of medicine at the expense of a general education in the arts, the humanities and in medicine as a whole.

As a result, medical students are being forced to specialize too early and often fail to acquire the general medical knowledge necessary to treat patients effectively.

"This premature differentiation into a specialty before achieving a reasonable and comfortable competence in general medicine restricts a physician's ability to analyse and synthesize information," the report says.

The physician may not recognize problems in a patient that are external to the specialty discipline, and

the capacity to provide many elements of general care required by most patients may be compromised.

"The association may be compromised," says the report, "by its emphasis on specialization and the rapid expansion of medical knowledge and technology, and the creation of scores of subspecialties in the major clinical disciplines."

"It has led in some institutions to multiple subdivisions of the classic broad clinical disciplines of medicine and surgery, resulting in aggregates of semi-autonomous units that function, at times, in a less than optimal fashion to achieve the institution's educational goals," the report says.

"The hazard of excessive departmental fragmentation is that subspecialties, as they develop increased administrative autonomy, often become further and further separated from the educational philosophy of the parent discipline," it adds.

Concern about the multiplication of specialties and the fragmentation of medical schools colours many of the 36 recommendations contained in the AMA report. An important recommendation calls on medical

schools to encourage intending students to break the "pre-med syndrome" of concentrating excessively on science subjects and neglecting the arts and humanities.

Another recommendation calls on colleges to ensure that applicants accepted for medical education possess integrity as well as academic ability.

The AMA believes that it is in the undergraduate years of medical education and the first year of postgraduate training that students should be given an opportunity to obtain a broad perspective on medicine.

Undergraduate courses should teach students about the social and economic forces affecting health care as well as clinical and scientific questions.

The report adds: "In addition to comprehending the internal milieu, there must be an understanding of the external environment that relates the human being to the physical world and to other persons, to the family, and to society."

## Biologists get go-ahead for diphtheria experiment

The government's Health Sciences ministry has given its approval to a team of Harvard medical school biologists for a run of gene-splicing experiments on highly lethal diphtheria toxins. The experiments, among the most dangerous ever authorized, are to be carried out under the strictest of conditions at a former biological-warfare laboratory in Frederick, Maryland.

Official approval of the experiments by the National Institutes of Health is to be published soon in the *Daily Federal Register* with a 30-day comment period to follow. Opposition to such research has already been voiced and the Harvard experiments are expected to generate considerable attention.

Principal investigators in the Harvard team are Professor John R. Murphy, a microbiologist, Dr Kenneth Coleman and researcher Diane Leong. They plan to insert diphtheria-producing genes into the common

bacteria *E. coli* to determine if the bacteria can make the toxin and to study its activity in a foreign host, according to Mr Murphy. If they can understand how the poison works it may prove to be a new combatant in malignant melanoma, a fatal skin cancer.

The recombinant-DNA experiments have been assigned the highest security classification, P-4 as the *E. coli* bacteria are normal inhabitants of human and other animal intestines. They will be conducted at the Frederick Cancer Centre, formerly the germ warfare station of Fort Detrick under the US army.

The Harvard team hopes to produce a hybrid gene composed of the diphtheria toxin-producing gene and one that produces a melanocyte-stimulating hormone. Once concocted the hybrid would be inserted into the *E. coli* to produce a new hormone that could use the attached toxin to destroy active melanoma cells.

## Medical aid for China

by Thomas Land

The University of Toronto is about to launch a \$2.4m (about £1.2m) exchange programme with Sichuan Medical College in Chengdu, south-west China, for the training of physicians.

China's willingness to embrace western medicine is a change from the public health policy laid down at a national congress in 1951. That policy, vigorously championed by a million "barefoot doctors" and other medical auxiliaries, has brought health care to the whole nation and cut infant mortality — a universal measure of health standards — from 200 to 20 per 1,000 in the past 20 years.

But for China, the emphasis on primary health care got out of hand during the years of the Cultural Revolution when all medical training ceased. Now 125,000 students are enrolled in China's 113 medical schools, learning both traditional and western medicine but the country has fewer than 400,000 fully trained physicians.

The five-year agreement between Toronto University and Sichuan Medical College — which is financed by the two institutions and their governments — is intended to improve Chinese teaching standards in basic clinical science as well as in pharmacy and dentistry. Toronto University will send professors and associate professors to Chengdu to lecture while members of the Sichuan faculty and recent Chinese graduates are to visit Toronto for advanced training.

The programme also includes the establishment of a medical resource library at Chengdu and improvements in English-language teaching there.

## Reagan's top officials sent back to school

from E. Patrick McQuaid

CAMBRIDGE, Mass. In the first programme of its kind, the White House has hired Harvard University's graduate school of government to conduct a series of management seminars for some 200 top officials of the Reagan administration.

During the past decade Harvard's John F. Kennedy School of Government has successfully run similar training programmes for newly-elected members of Congress, state government officials, the mayors of America's largest cities, and other public management executives. While the latest link in a well forged Cambridge-to-Washington bond, it marks the first occasion in which the White House has actually drawn up a contract with a university for such services.

The White House is paying \$85,000 for a series of six executive training seminars using actual case studies. The two-day sessions will be held in Washington for groups of about 30 presidential appointees who all serve at assistant secretary level.

One seminar was held about a year ago as a pilot. It was described as "particularly lively" by those attending and given top grades from the Secretary of Defense, Mr Caspar Weinberger, who sat in as an observer.

Harvard professors describe the seminars as "a mutual learning process as material gathered from the sessions will most likely be used in courses taught at the graduate school. Future seminars will include a wide range of Reagan appointees, such as

White House aides and undersecretaries from the Department of State and the Mine Safety and Health Review Committee.

Seminars will focus on dealings between these managers and Congress, the media, the states, cities, and various interest groups.

It comes as no surprise that Harvard should win this prestigious contract, for a sizable number of Mr Reagan's chief aides were Harvard-educated, among them Mr Weinberger, who took both undergraduate and law school degrees from Harvard, Mr David Stockman, the controversial director of the Office of Management and Budget, was on fellowship at the government school in 1971; the U.S. attorney general, Mr William French Smith, is a 1942 Harvard law school graduate; Mr Donald Regan, secretary of the treasury, attended Harvard College; and outgoing secretary of transportation Mr Drew Lewis, attended Harvard business school.

Other White House aides with Harvard affiliations include Mr Richard Pipes, a professor of history at Harvard and member of the National Security Council; Mr Roger Porter, assistant professor of government and executive secretary to the Cabinet Council on Economic Affairs; Mr Richard Darman, undergraduate and business school as well as lecturer at the White House; chief of staff, Mr Chase Chalmers, executive assistant to the vice president, was on fellowship at the Kennedy school in 1980.

## Ontario merges university with colleges

from Mark Gerson

MONTREAL The Ontario government has announced plans to restructure higher education in the north-eastern section of the province by merging Laurentian University of Sudbury with three smaller colleges: Algoma University College, in Sault Ste. Marie; Nipissing University College, in North Bay; and College Universitaire de Hearst, in Hearst.

The amalgamation is designed to make it easier to provide post-secondary education to a large, sparsely populated region. There are about 600,000 people, 28 per cent of them French — speaking, north-eastern Ontario, an area about the size of Scotland.

The size and independence of the four institutions have made it difficult, particularly for the three small colleges, to offer a satisfactory range of courses to the widely dispersed population. According to Dr Henry

Best of Laurentian: "If we have closer cooperation and more central control of resources, we will be able to provide better and wider services to the people of the region."

While Algoma, Nipissing and Hearst colleges have been affiliated to Laurentian for nearly 20 years, the merger will place all four institutions under one administration for the first time. The university will maintain its present campuses and service points and will likely have its administrative headquarters in Sudbury, where 80 per cent of students, faculty and facilities are already located.

Many problems are need to be ironed out before the new university can begin operations. For example, faculty and staff have yet to be assured that the merger and the period of rationalization that will inevitably follow won't result in layoffs. They are also worried about the transfers that may be required be-

tween campuses which are between 80 and 400 miles apart. In addition the faculty do not want the government and the new administration to use the reorganization as an excuse to introduce changes to policy affected tenure, sabbaticals and faculty representation in university government.

Although the new university will follow Laurentian's example and operate in both English and French, Franco-Ontarians are afraid that College Universitaire de Hearst will be overwhelmed by the large English-speaking majority.

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## Overseas news

## Staff challenge 'whitewash' bid

from Geoff Maslen

MELBOURNE

Australian university staff have attacked a federal government proposal to spend A\$400,000 (£4m) on a media campaign to encourage young people to remain in education beyond compulsory school.

The president of the Federation of Australian University Staff Associations, Dr Adrian Ryan, described the proposal as a cynical attempt at whitewashing.

"The federal government has been squeezing tertiary education finances for several years, and in particular student financial support," he said. "It is not surprising that with this, and the anti-higher education remarks so often made by the Prime Minister and some of his cabinet colleagues, that there is a lack of enthusiasm for higher education among school-leavers."

"The government wants to appear to be doing something about falling participation rates, but turns away once again from the main cause — the problem of inadequate public financial support for the education system," he added.

Dr Ryan said that the government's tertiary education assistance scheme — which provided grants to poorer students — was even less generous than the dole. This must also be an important factor in determining whether young people can afford to remain in the education system to tertiary level, he said.

Referring to the government's proposed concern about declining participation rates in higher education, Dr Ryan said: "Both the universities and the federation have been sounding the alarm about the implications of this decline for several years."

Until now they fell on deaf ears, but apparently in this pre-election period the government has temporarily regained its hearing.

Dr Ryan was referring to the fact that the Australian government faces an election some time in 1983 and it is widely believed an election will be held either in March or May.

Although he commended the media campaign, Dr Ryan said it would be useless unless it was followed up by a substantial improvement in student allowances, more realistic funding for university libraries and student services, and funding to enable universities to remove the restrictive entry quotas.

"There is no doubt that tertiary education is still a lifelong goal, particularly in a society which is changing as rapidly as ours is today. Statistics show that graduate unemployment is well below the general level of youth unemployment," Dr Ryan said.

The main problem, however, was that of convincing students and their parents that the three, four or five years study necessary to obtain a degree or diploma was worthwhile.

Dr Ryan was also critical of the government for failing to release a report on a comprehensive study into student financing. The report, prepared by Professor David Beswick of Melbourne University, was due to be released last month. It says that Australia can expect an increase in the number of young people going on to higher education over the next five years.

Dr Ryan said it was difficult to understand why the government was launching a publicity campaign before Professor Beswick's report had been publicly discussed and evaluated.

## Students told to queue at the pictures

from James Hutchinson

BONN The Social Democrat minister of science and technology in North Rhine Westphalia, West Germany's most populous state, has come up with a novel idea to ease overcrowding at universities.

Herr Hans Schwiler has suggested that cinemas, which are closed for much of the day, could be used as lecture halls. "What we need in the university system is a bit more flexibility and a readiness to adopt unconventional solutions," he said.

Overcrowding is so acute at some German universities that lectures are relayed by loudspeaker from packed halls to students in other rooms and even in corridors. Herr Schwiler said it should also be possible to use grammar school assembly halls for teaching university students — German schools close at midday or soon after.

Herr Schwiler also suggested that laboratories and departments of engineering and technology should be used round the clock on a shift basis. "This would not be very pleasant, but it's bearable. After all, other people have to work shifts," he said.

North Rhine Westphalia officially has room for 214,000 students, but the state's student population is in fact already 375,000. By the end of the 1980s, it is expected, the figure will have risen to about 430,000.

## New Zealand awaits final judgment

from Lindsay Wright

WELLINGTON A review committee set up by the University Grants Committee and chaired by Professor Bert Brownlie, vice-chancellor of Canterbury University, is soon expected to produce a final report.

Incorporating recommendations from earlier discussion papers, the full report will concentrate on academic staffing, research, libraries, computer education, social work, engineering and business administration. It will take account of submissions made in response.

In the last of these papers, on management education, the Brownlie committee called for increases in allocations for staffing, computing and accommodation. It asked for the development of more graduate programmes, including management and business administration courses at Auckland and Victoria universities for high-calibre graduates.

Enrolments in business-related degrees increased in New Zealand from 1,328 in 1962 to 7,204 in 1981 — a 300 per cent increase which was well above the 25 per cent total increase in university student numbers.

Commerce graduates last year numbered 1,274. While 14 per cent of other graduates were still looking for a suitable job at the end of May last year, only four per cent of commerce graduates were not placed.

## Detained Kenyans charged with sedition

Seven of the students detained in last year's abortive coup attempt in Kenya have admitted charges of sedition. Trials of 14 more have now started in Nairobi and a total of 69 students are expected to appear in court.

There have been claims of maltreatment while the students have been awaiting trial, with 65 said to have been held for three months in a

single cell. They have also complained of pressure from the authorities to plead guilty to the various sedition charges laid since the coup attempt.

Three students have already received prison sentences of five years or more. Mr Tito Adigomo, the students' union chairman, was jailed for 10 years in September. Mr Oginga Ogoe received the same sentence

## Chinese get World Bank loan

by Thomas Land

The World Bank is to lend China \$75.4m to help meet the cost of increasing the number of agricultural science graduates and to provide research support.

In the long term, the project is intended to help China achieve its national objective of self-sufficiency in food production.

This is the World Bank's third big loan to China since it joined the institution in 1980. Last year, the bank lent China \$60m for agricultural development and a year earlier it made a \$200m loan for building a national higher education framework.

The latest loan, granted through the International Development Association, an affiliate of the World Bank, is to fund a five-year, \$200m project. It will assist 11 colleges and 6 research institutes, establish a new rice research institute and provide for a series of basic studies on agricultural research.

The interest-free loan is repayable in 50 years (including 10 years' grace) and carries a service charge of three quarters of one per cent a year.

China's national food production falls short of domestic demand by an estimated 10m tonnes of grain a year. The United Nations Food and Agriculture Organization fears that the country's demands for food imports could become a serious international problem if they continue to increase at their present rate.

So China is rapidly expanding investment in higher education, which is intended to improve specialist training in agriculture and related fields. The country's economic and educational planners hope that such a policy will enable China to achieve vasty expanded agricultural yields comparable to those of the most advanced farming nations by the year 2000.

As the World Bank sees it, China's ability to feed a growing population and to ensure an adequate supply of raw materials for an expanding industrial sector depends on increasing agricultural output.

But further expansion could be constrained by the scarcity of arable land, problems of soil and water conservation and decreasing marginal return from further labour inputs.

In addition, China's success in achieving relatively high farm pro-

ductivity through increased use of chemical fertilizers, expansion of water control and high-yielding seed varieties makes further improvement difficult.

The World Bank said: "China therefore needs new breakthroughs in the agricultural sciences and technology and their effective application at the production level. There is at present a shortage of trained agricultural manpower. The project will assist in improving the quantity and quality of agricultural education and research and in strengthening planning."

The scheme will complement a vast reform of China's higher education, part-financed by the World Bank's first loan to the country. Many Western specialists are expected to be invited to help China's 26 universities to increase the science and engineering enrolments from 92,000 to 125,000, to introduce post-graduate courses and to improve training and research.

They are likely to change Chinese education by helping to erect a new framework for specialist training. China has one of the world's lowest per capita university enrolment rates.

## What an essay title! — "The Black Sea University and the Spanish Inquisition, compare and contrast!"



Attempts to bring the Turkish universities into line have reached new proportions at the Black Sea University, Trabzon. A directive from the rector, Professor Lami Eser, decrees: "All male students studying at the university will wear a shirt and tie. They will not wear denim trousers, nor will their hair or beards be long. Female students will not use excessive make-up and will not wear high-heeled shoes or long boots. Students who do not conform to these decisions will face an administrative inquiry."

## More women go to college

The proportion of women in Irish universities and colleges continues to rise, according to the latest batch of statistics from the Higher Education Authority.

In the academic year 1981/82 there were 24,912 male students (56.5 per cent of the total) and 19,183 women students (43.5 per cent). In 1975/76 the respective percentages were 61.5 and 38.5.

In relative terms the universities' share of the student market has continued to decline. Seven years ago two out of three students went to university; last year they entered for just over half of all higher education — students 12,828 men and 11,680 women.

The next biggest segment of 7,119 went to the nine regional technical colleges, where the number of men was almost double the number of women students. There was a similar pattern in the Dublin and Limerick national institutes for higher education — 1,636 men and 568 women.

Enrolments in the primary teacher training colleges confirmed the trend towards an all-female primary teaching profession. Last year there were 2,352 female and only 337 male trainees.

The total number of students — 44,095 — was higher than predicted and testified to the rapid growth of the regional technical colleges and the national institutes for higher education.

Food for thought Hungarian law has been changed to permit private teaching since public education has so far "failed to fulfil its tasks" in certain sectors, notably language teaching.

Private tutors must be licensed by the local authorities and can take up to five pupils. This has been done in spite of the possible social tension generated by such an "anti-equalitarian" move.

## Albania celebrates jubilee

by Our Correspondent

Albania's only university celebrated its silver jubilee recently against a political background that seemed more confused than ever to Western observers.

Outwardly the festivities took place under the best possible auspices. Guests at the special jubilee meeting included Dr Aleks Buda, president of the Albanian Academy of Sciences, Vangelj Ceraeva, secretary of the central committee of the Albanian Workers Party and Shefqet Peci, deputy chairman of the presidium of the People's Assembly. The ceremonies included reading a special letter to the students and lecturers from the Communist Party leader, Enver Hoxha.

During November and December, the Albanian media lauded the growth of the university over the last 25 years and presented some impressive statistics. From a modest foundation with 3,000 students, 15 "specialists", 16 "branches" and 45 chairs in 1957, it now had 9,000 students, 42 "specialists", seven faculties with 92 chairs and "scores" of branches, and 800 "pedagogues".

During the last 25 years, said the panegyricists, 30,000 cadres had graduated from the university, of which 11,000 were girls. The university was said to be carrying out intense scientific work, and to have published hundreds of textbooks and some 60,000 pages of scientific papers and monographs over the last decade. A number of other celebrations with an academic flavour took place at the same time, including the opening of a historical museum in the Kruje district, and the diamond jubilee of the National Library. There was also a learned conference on the political, diplomatic and patriotic activities of outstanding figures of the era of the proclamation of Albanian independence 70 years ago.

In the background, however, there were political upheavals going on. Although the elections to the new People's Assembly had a 100 per cent turnout, with 1,627,957 electors voting for the Party, eight invalid papers and a solitary vote against. There were sweeping ministerial changes, although the education minister, Tefik Cami, managed to ride out the storm.

These events coincided with a campaign of denigration, launched by the Party leader, Enver Hoxha, against his former colleague, Mehmet Shehu, who committed suicide at the end of 1981. He described him as an "internal enemy" of Albania who had worked for the overthrow of the Party.



## Team spirit for student sports

The much-vaunted yet chimerical idea of an all-student British sports organization began to seem less far fetched at Lancaster University last week. The general council of the British Universities Sports Federation voted to accept the main recommendation of a working party report, entitled *A framework for the future*, that a unified sports organization be established for universities in the United Kingdom.

The universities, except for Sussex and St David's Lampeter, are all individual members. There are also corporate members, the Universities Athletic Union, the University of Wales Athletic Union, the Scottish Universities Sports Federation, London University and Oxford and Cambridge. In view of the disparate elements within the organization, all with divergent histories and philosophies it is an achievement to discover this degree of common purpose.

Yet it was clear from the debate at Lancaster that the constituent elements of the new organization will fight to keep sovereignty over important areas of finance and sports policy. The small print of the final treaty will severely qualify the rhetoric in the declaration of intent. A steering group of 15 has until early May to produce proposals for implementing the plan.

Even if the steering group's proposals are acceptable to a special BUSF general meeting to be called in May, students who take part in sport on Wednesday and Saturday afternoons are unlikely to notice any changes. It is hoped to have the central organization, which has yet to be named, in place for the start of next academic year. However, the restructured fixture lists for national championships in four home countries, with London, Oxford and Cambridge now eligible to enter the English competition, may be delayed until 1984/85.

Uncertainty exists too about finance for the new body. The working party's idea of a sliding scale of capitation fees for the whole country of between 20p and 40p, depending on the size of the university, with all funds being paid direct from the university to the centre, is likely to be wrangled out of all recognition by the steering group. Special cases and exemption clauses may become less the exception than the rule.

This is all a long way from the once brave new vision of such as Alun Evans, who left the frantic world of student sport last May to become secretary of the Welsh Football Association. During his time as

secretary of UAU, Evans produced a blueprint for a national system of "banding" on the American model, with sports in each region divided not along sectoral lines but according to ability. Crack university shall play ball with top-class polytechnic, and a college shall be matched against a university of similar size.

Many agreed it was a desirable, though unlikely outcome. Perceived differences in status and financial inequalities between the sectors kept everyone tied securely to their own patch.

However, over the last few years, the squeeze on higher education in general has forced the current process of defensive rationalization upon the universities. The Committee of Vice Chancellors and Principals demurred before conditionally accepting the recent increase in the BUSF affiliation fee to 25p per head, and English vice chancellors in particular are against having to pay two large affiliation fees to BUSF and UAU. Also, a change in the method of financing has brought student sport into direct competition with academic departments for dwindling university budgets.

So last year's BUSF general council decided to embark on the working party's road to unity, albeit more as a result of outside pressure than as a deliberate act of will. The Lancaster debate had a touch of schizophrenia about it. From time to time a speaker would strike out for the high ground of British union, promising sponsorship deals, strong representation in the councils of government, and even television money. Then sectional interests took over again.

Alun Evans watched it all with a sense of mounting anger. "Nobody's thinking about what we could be doing. You have to break eggs sometimes if you want to create something new," he said. But even he shared the Welsh reaction against the idea of paying all their funds into the supra-national centre, only to receive back what was needed to run their own internal competition. In this scenario, Brussels is represented by Woburn Square, present home of both the BUSF and UAU, and like-liest HQ for the new organization. "The Welsh don't want someone telling them what events they can schedule," said Evans.

Welsh pride had been stung before the conference by the crass decision

of the English majority in UAU, perhaps overkeen to adopt the working party recommendation to create home country championships with a strong national identity, to exclude the Welsh universities from the final stages of the UAU competition next year. As one Welsh delegate observed: "That's 65 years of history torn up right there." Hugh Stitt of Bradford, a dissenting voice on the English side, pointed out that his university's rugby union club had a substantial proportion of Welsh students anyway, so the "English identity" argument was meaningless.

The Scots too have their worries, lest their affiliation fee become a hidden subsidy to what they view as

an inefficiently run English competitive programme. Until now the SUSF has run a very tight ship indeed, based on a flat-rate 13p capitation fee and a reliance on unpaid honorary officials. Scottish vice chancellors might not agree a new total amount, even though some 23p would come back to Scotland for disposal as the national committee saw fit.

By way of contrast, the incorporation of those bastions of tradition, London, Oxford and Cambridge into the organization looks set to go through without too many hiccups. However, the immediate changes will be more cosmetic than real. Many



Major fixtures like the varsity match are unlikely to be disturbed

minor sports at Oxford and Cambridge will certainly welcome the opportunity of taking part in national inter-university competition for the first time. Yet the major sports at Oxford and Cambridge are unlikely to disturb their prestigious fixtures lists with outside clubs nor their pre-eminent varsity fixtures in order to accommodate matches in the English championship.

Some cynics suggest that Oxbridge clubs will deliberately field weakened teams in the championship for fear of finding their first teams less than a match for the better university sides. It was not a suggestion that amused Peter Clarkson, the Oxbridge representative on the working party. "That comment deserves total contempt," he said. "It is simply not true that we are uninterested in playing against other students."

Yet for London it will be deliberate policy to field "weakened" teams as the sole university representatives in national championships - the price the University Sports Council have had to pay to get acceptance by their colleges. For four years University College and the London School of Economics have been constituent members of UAU, and a month before the BUSF council meeting the UAU rashly promised to defend their individual right of entry to any future championship. Now the BUSF has voted to take that right away from them, and accept just one team from London University as a whole.

London's policy will be to invite constituent colleges to offer to represent the university in each sport. A hypothetical example would see LSE entering the basketball competition, and UCL the netball. What ever LSE and UCL may feel about the outcome, the senate is certainly pleased. Paying one set of affiliation fees for 40,000 students at a per capita figure of 20 to 25p represents quite a saving on the old system of paying two sets at much higher rates for individual colleges.

So the arguments will now go on among the steering group, arguments about what to call this hybrid British university sports body - BUAU perhaps or BUSA, or other less manageable acronyms? Ways will be sort of preserving charitable status, and avoiding payment of VAT. Territories will be fought over and new lines of defence drawn. In August or thereabouts a strange new bird will come slouching towards Woburn Square, but the signs are that it won't be decked out in the plumage that Alun Evans once had in mind.



Sir Hans Kornberg (left) with Venture Research supported scientists Dr Peter Rich and Dr Collin Self

## BP's million pound injection

Jon Turney on a unit that plans to fund research that other grants don't reach

If you were told to spend £1m on promoting innovative scientific research, how would you choose who to support? It sounds like an intellectual parlour game but for Dr Don Braben and his colleagues at BP's Venture Research Unit it is an intensely practical question.

There is no guarantee that the best answers are known. Only 150 years ago, science was largely the province of the gentleman amateur. Since then the way research is funded has changed out of all recognition. Science is now enmeshed in a complex military and industrial system which furnishes support on a scale undreamed of in the Victorian era.

The distribution of this new-found wealth creates difficulties for both donors and recipients. Amateur scientists, presumably, can examine whatever phenomena they wish, and follow their researches anywhere they lead. But today's multi-million pound research budgets have organizations to administer them and the contemporary scientist inevitably has to jump through bureaucratic hoops before laying hands on any money. This is both good and bad. Governments and corporations get some sort of reassurance that their money is wisely invested, and researchers can work in relative financial security. But research council pigeon-holing and peer review often tends to be conservative.

Sir Hans said the council assumes "there are really big questions which span disciplines, which the research councils can't fund because they are multidisciplinary - we're reaching the parts that other research grants don't reach".

Certainly, most of the money handed out so far has gone to multidisciplinary teams. For example, one proposal recently agreed in principle, will bring together a group of biochemists studying photosynthesis and researchers in a neighbouring department working in control engineering. The chemical systems which convert sunlight to drive synthesis of essential molecules are among the most complex and tightly organized in plant cells, so ideas from control engineering might help understand how they are regulated.

Conversely, insights into photosynthesis may react back on the way the engineering researchers think about control of complex processes. Researchers chosen by the unit are already highly regarded so they often command substantial support from other sources. Thus the VRU will sometimes pick up "spin-offs" from existing research programmes. One example is Professor Collin Caro's group at Imperial College, London, who work on natural blood flow in people thinking quite profoundly and often unconventionally about some natural phenomenon and doing their best to understand what is going on wherever that understanding can lead them, like Bardeen and Shock-

ley whose work led to the development of the transistor or Fleming whose research led to penicillin. So far, all the successful applicants work in universities, and Braben sees the venture research programme fostering a new relationship between BP and the academic community. Once the board criteria for acceptable ideas were set, the unit's task became selection of the right people. There is no shortage of applicants and only 17 proposals have been accepted so far. The lucky few receive whatever support they need for three years, including equipment, technical support staff and money for others to cover their teaching commitments.

The eventual selection is a gamble, and although the total expenditure is only around 1 per cent of the company's research budget, the unit's money will not continue indefinitely unless there are tangible benefits. The job of the research assessors is to make the gamble more like racing than roulette, using whatever guides to form and information about runners' training and pedigree they can compile. The only additional difficulty is that they still lack a clear definition of what counts as a "win".

Ultimate responsibility for approving the grants recommended by the VRU rests with a Venture Research Advisory Council, chaired by Sir James Menter, principal of Queen Mary College and a non-executive director of BP. Other members include Sir Rex Richards, warden of Merton College, Oxford and Sir Hans Kornberg, professor of biochemistry at Cambridge.

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## The mighty, the macabre and the more mundane

Sandra Hempel takes a look at the 1952 Cabinet papers

A seating plan for the good and the great at the coronation of Queen Elizabeth II and the embarrassing newspaper publication of a photograph of a British soldier holding the severed head of a Malayan bandit were among the problems with which Churchill's 1952 Cabinet had to grapple, it can now be revealed.

But the government, which included R. A. Butler as Chancellor of the Exchequer and Harold Macmillan as housing minister, also spent time on more mundane matters. According to the newly-released records of the year there was some discussion about providing technological education to serve the future needs of industry.

In June that year a government statement to Parliament stressed the view that improving facilities for technological education could best be done by building up at least one institution of university rank devoted predominantly to the teaching and study of technology. The University Grants Committee, which then came under the Treasury, was asked how this should be done.

The UGC came down strongly in favour of developing a single site at Imperial College, London, with "no more than normal" development elsewhere. The committee recommended that Imperial College should grow to a student population of 3,000 during 1962-67 with possible expansion to 4,000 after 1967. Estimates made in 1950 for such expansion had shown a capital expenditure of £6m on building spread over 15 years and a trebling of the annual grant to the college from £600,000 in 1949-50 to about £1,800,000.

But the then Lord President of the Council, Lord Woolton, disagreed with the UGC. He was in favour of expanding Imperial College but wanted to encourage technological education outside London as well and suggested the then Manchester Municipal College of Technology, later UMIST, and the Royal Technical College, Glasgow, later Strathclyde University, as possible candidates for such development.

In a memorandum to his Cabinet colleagues in October Lord Woolton says: "I feel sure we must do something to develop our new policy at places other than London. An expansion of Imperial College will not be the answer. I have a memo of his own in almost unnoticed in London. It will not enlist the support which local industrialists in manufacturing areas have already offered."

"I feel sure that if we only expand Imperial College we shall be strongly criticized for our failure to develop any of these new technological centres in the places where they are vitally needed."

Woolton argues that technically-minded young people in Scotland, the north, the Midlands and Wales must be mobilized. These areas already had an inherent instinct for craftsmanship and would provide the proposed new universities with a source of students with aptitude for the practical application of scientific knowledge. He refers to conversations with industrialists who claimed that university-trained engineers were often too academic while the higher technological courses did not seem to be attracting "the highest type". Those trained below university level played a useful part in industry but "they are in the main too specialized and not sufficiently high-powered". He adds darkly: "Some of our countries seem to manage these matters better."

Calling for the development of at least two higher technological institutions outside London, Woolton says he has an open mind but mentions Glasgow and Manchester. In fact his case for suggesting Manchester might not have been entirely unbiased.

Educated at a school just down the road from the college, he was chancellor of the University of Manchester when he wrote his memo.

One of the reasons he gives for choosing the two institutions was that extension were in progress on both sites at the time and so expansion would be faster than at Imperial.

In 1952, the Glasgow College was the largest university-rank technological institution in the country with around 1,000 students. The expansion already under way was to bring this total up to 1,300-1,400. The UGC had warned of difficulties between the college and Glasgow University about their relative status and there had been considerable tension between the two institutions, which had been linked since 1919 with the scholars of the classical academic disciplines at one place suspicious of the newcomers from the modern world of technology at the other.

The Manchester college had 7,000 students in the early 1950s but only 10 per cent of these were studying for degrees. The majority were part-time students, many of them attending evening classes for which the college was famous. The UGC said

about Manchester, "the direction of the college has not of recent years been as lively as that of the Royal Technical College, Glasgow". Lord Woolton adds that it was undoubtedly suffering from uncertainty as to its future status and was without a principal. Sir James Myers had resigned as principal in 1951 and Dr Bowden, minister of technology under Harold Wilson, was not appointed until 1953.

The college has four chairs at present but they are hoping to have five more within the next five years and a further five more after that," Woolton says.

Manchester finally received its charter in 1956 after expressing great disappointment in 1953 that Imperial College had, after all, been the first to benefit from expansion and upgrading. Its UGC grant went up from £74,000 in 1952-53 to over £300,000 four years later, which still local criticism that ratepayers' money was being used to fund work of national importance. In 1954 the City of Manchester agreed to the setting up of an independent governing body which was the precursor to the granting of the charter.

Strathclyde had a longer wait despite the efforts of James Stuart, secretary of state for Scotland who backed Lord Woolton's efforts in the Cabinet with a memo of his own in October 1952.

"We cannot content ourselves merely with a decision to build up Imperial College no matter how spectacular that progress is to be. Our credit will suffer outside London if we say merely that Imperial is to be built up and nothing else of any significance."

In making the case for Strathclyde, Stuart says that the government need not commit itself to further physical expansion. The college had as much as it could cope with in the £800,000 extension that was underway at the time, according to the minister, what was needed was a general assurance that the Imperial project was not the only step the government was prepared to take.

## Helping to fill the coffers in the local community

Felicity Jones argues that higher education gives back as much as it takes from the community

All the criticism about the high cost of colleges, polytechnics and universities sometimes overlooks the fact that they can contribute as much in turn to the local economy and community.

The degree of benefit to the community is not something which is currently measured to the satisfaction of all parties. It is difficult, anyway, to evaluate educational assets in financial terms. And it is no coincidence that a rash of reports and studies, which leap to the defence of colleges as contributors to the local economy, suddenly appear at a time when colleges are under threat of cuts of budgetary reductions.

Nevertheless, such studies do show that colleges are not just sponges soaking up resources but that some of them make a considerable impact on the micro-economy, a fact which should not be ignored when institutional closures are being considered. Bristol Polytechnic, for example, claims to contribute over £25m to the economy of Avon County and to support 3,000 jobs at a cost of just over £1m to the taxpayer, according to a report by Mr Reg Ruel who led a team of economists from the polytechnic's economics and social science department in a statistical analysis.

Of course the conclusions are subjective since Avon's gain is another county's loss but the team calculated that, though the bulk of the polytechnic's income, almost £20m, comes from outside, most of it is spent within the county. The money comes from the advanced further education pool to which all local education authorities contribute and from which some benefit more than others.

Mr Ruel's calculations also take into account the fact that of the £4.6m contributed to the budget in student fees last year, 65 per cent came from other local authorities. The polytechnic's income from other sources, such as earnings from conference facilities, added another £1.4m.

Most of that combined income was spent in the local area and students boosted it with book buys and money spent on accommodation, food and clothing. A further £3m from the "multiplier effect" where expenditure boosts income and leads to more spending.

It could be argued that there are other hidden benefits to the community which unfortunately the report did not attempt to measure, such as the impact on local employment of capital building projects, the poly paid out of the pool and the economic gain from the range of short and block release courses.

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# The brains of Britain

Is there, has there ever been, a British intelligentsia? In the first of a three part series Bernard Crick asks if intellectuals once held more sway than they do today.

"I have referred incidentally above to the fact that I was turned out of the New University Club in St James's Street for a speech on the Embankment in favour of the unemployed. As I had given up my membership of the Garrick, which I joined in 1874, just before, expenses in connexion with the Socialist movement having become so considerable as not to permit of my belonging to two clubs, I found myself clubless in London, which at first was a curious sensation for me. I mention this matter of my expulsion from the New University Club as an example of the furious prejudice stirred up in those days among the educated middle class against any one who took the side of the people in earnest. . . . Elsewhere a much wider view of the situation is taken by men in the same position, and it is the fact also that, from whatever cause, the aristocracy here, however reactionary and even tyrannous they may be in their public life, are much more courteous in private than the educated upper middle class. My own case is a remarkable example of this."

H. M. Hyndman, *The Records of an Adventurous Life* (London, 1911) pp.416-17

"We British", said the late Sir Denis Brogan, "don't take our intellectuals too seriously". Some have doubted that there are snakes in Ireland at all. Certainly there are British intellectuals - we all know some - but do they constitute a class? And if so, did they once have more power and influence than today; say in the faded 1930s?

If there are three possible criteria of class - income, status and power - it is plain status and power - that are relevant. Even quite poor people, ragged Bohemians 'stealing their books', can be recognized as intellectuals: it is recognition that gives them status. The status becomes politically important if they have some power, though it is specifically power in the sense of influence. A bureaucrat, for instance, could be an intellectual as well; but he is a bureaucrat in that he has legal power to make decisions; he is an intellectual in so far as he has ideas that can affect the basic concepts by which people both judge the nature of situations and speculate on what could be done.

So for there to be a class of intellectuals, there must be an external recognition that there is such a group of high status and purported influence, and an internal consciousness of being a member of such a group. One more thing, intellectuals are also defined by a speculative, critical or challenging attitude to established ideas: so they are not lawyers or bureaucrats, creatures of rule or routine - "starch intellectual" is, strictly speaking, a contradiction in terms. Certainly an intellectual can be highly conformist, but as a class they have to be innovative and cultivate a certain independence of the intellect, at least an ultimate unpredictability.

Their independence is why, for instance, Orwell can appear confused in both attacking intellectuals as a class and in being so much an intellectual. He suspected that most of the intellectuals he had met in the wartime BBC would put holding on to their job before airing their principles, securely before independence: the "Inner Party" in *Nineteen Eighty-Four* is a satire on "pretend or renegade intellectuals who finally escape the power for its own sake. Power now becomes their obsession; not the influence of ideas publicly and freely argued, though the constraints are many and journalists who simply specialise in reporting literature and the arts are only intellectuals, if at all, by

how they do it, not by what they do. Also independence implies speculative uncertainty. The sociologist Robert Nisbet has observed that scholars and scientists are only happy to be called intellectuals when:

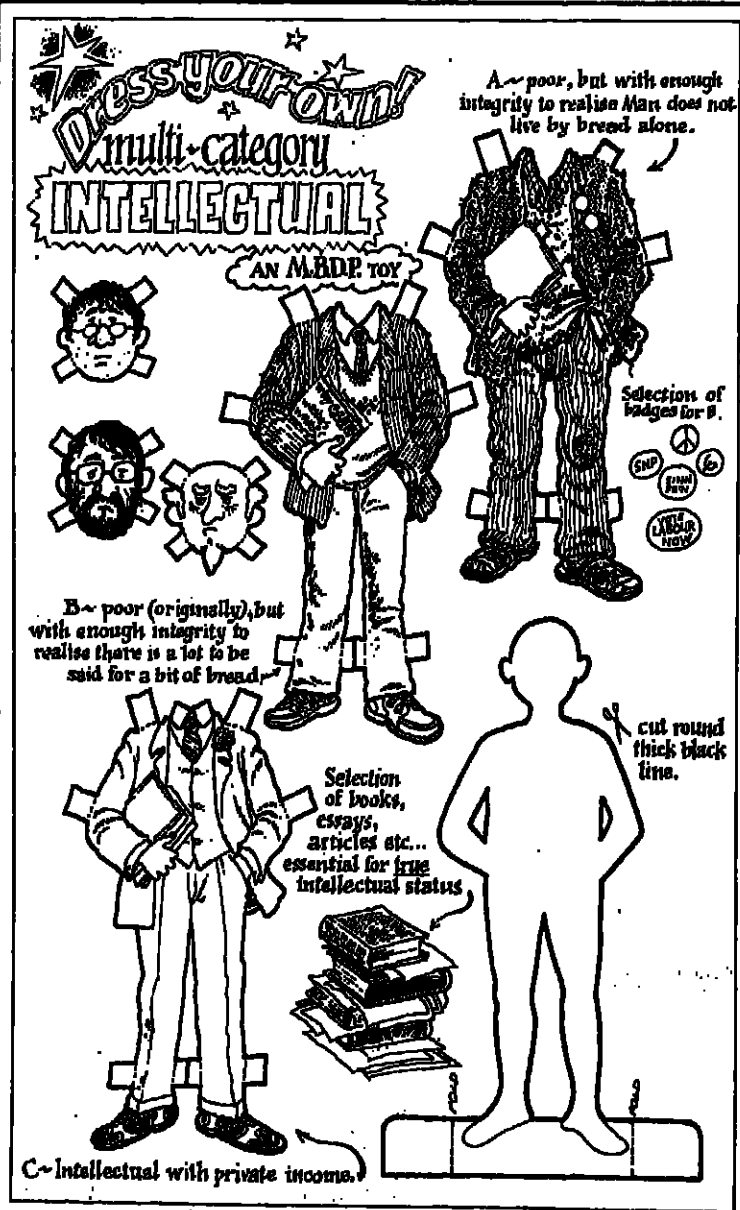
"... the company is proper. To be characterized 'more an intellectual than a scholar' can be devastating in one type of company as 'more a scholar than an intellectual' in another type."

A scholar is, after all a specialist with a paradigm of a discipline to which his or her status and influence are strictly related. An intellectual may be a scholar, in part, but ranges more widely, not merely looking for links and common tendencies across academic demarcations, but ranging more publicly, outside scholarship. (I'm regularly put down by politicians as being "too academic" and by academics as being "wildly intellectual", when "wildly" means "widely".) An intellectual is not necessarily politically active, but does have a public role. "Intellectual aesthete" is again, strictly speaking, a contradiction: an intellectual needs an audience, an aesthete only needs standards.

One last matter of definition. Intellectuals are usually, but not necessarily, leftwing. If there is a leftwing government or an established left, liberal, radical or secularist orthodoxy, then critical, speculative and unpredictable thought can come from the right - as in France in the 1890s, Germany in the 1920s and in the 1930s and 1970s in Great Britain. Perhaps the best proof of the existence of intellectuals as a class is that they have a history: in this country they emerge slowly from Grub Street, the coffee houses, the salons, the bookellers, the small magazines and from among the teachers who implemented the educational reforms of the late nineteenth century. The sociologist Lewis Coser claims in *Men of Ideas* (1965) that the term got currency from January 14 1898 with the *Manifeste des intellectuels* appearing in a Paris newspaper, the voice of the Dreyfusards. But when the government changed, monarchists, traditionalists and clericals also appeared as intellectuals. The same *bouleversement* happened in Spain many times; now no one blinks at the idea of both left and rightwing intellectuals, though here in Britain I still worry that, say, Maurice Cowling, Michael Oakshott, and Roger Scruton would think I was mocking them to call them intellectuals, rather than saying that their imagination and influence reach beyond their fields of scholarship and, if rightwing, they are not party loyalists. Orwell once wrote that the writer "cannot be a loyal member of a political party" (my emphasis). Intellectuals are not politically reliable.

This brings me, at last, to the 1930s and is precisely why the famed influence of leftwing intellectuals is, to my mind, historically so doubtful. Quite simply the British Communist Party used the prestige of intellectuals but not their ideas; and their idea of an intellectual was simply under the 'direction' of the Party (again, as in Orwell's satire of the technicians of the "Outer Party" in *Nineteen Eighty-Four*). We must cast wider than the CP if the influence of intellectuals in the 1930s is ever to be sensibly - rather than romantically - studied.

Perhaps we need to distinguish two types of intellectual, both of which emerged before the 1930s and being intellectual, they overlap; it is a matter of emphasis; but I will call them political intellectuals and literary intellectuals. The one is defined by leadership elite, clean-shaven or with a small tuft of hair, claiming a leadership role, status or contract, to exercise leadership (that is they are not necessarily servants of church or state, like the Elizabethan gram-



mar school boys - what De Jouvenal well calls "agents", a sub-branch of "the clerical" or "les clercs". Among their great names are J. S. Mill, Morris, Hyndman, Shaw, Wells, Rebecca West, Orage, Middleton Murry, Bertrand Russell - which shows the overlap of categories. While their leadership may only be in a particular profession, artistic or literary activity (they may not think systematically about society, like ideologists), yet they are involved in the protection or aggrandizement of the public status of their vocation - so to that extent, either directly or indirectly, consciously involved in politics. In Tocqueville's terms they see themselves as "an aristocracy of talent not of birth". They are the children of Napoleon and Bentham.

The other side of the coin is an elite of self-fulfilment that claims by virtue of its intelligence, sensibility or artistic dedication to be independent of politics. This does not mean that they are necessarily un- or anti-political (cf the great *brüderlichkeit* between Heinrich and Thomas Mann on the issue of "commitment", or the tension between Keynes and Leonard Woolf and the rest of the Bloomsbury Group, or between Cyril Connolly and his friend George Orwell); but they claim to be free to commit or not to commit themselves to the polity as a matter of will, not of necessity, or even contingency. They have a conscious superiority towards the alleged necessity of involvement in productive life. Their independent "work" does not involve "necessary labour" (to use Aristotle's concepts). A private income, of course, helps, as does literary success (but not commercialism), although a few intellectuals can still diminish their needs to balance inadequate supply (austerity) and simplicity as well as authenticity. They are the children of Goethe and Ruskin.

There is also a third or rather a marginal group - (unshaven) those who would like to achieve an authority by their devotion to "the higher things" without "soul-destroying drudgery" or "selling out" (said by Orwell's Gordon Comstock), but who fail. An earned income, failing a private income, is after all a helpful condition for leisure and independent intellectual activity, even pretend intellectual activity or strictly evening and weekend intellectuals; they cannot always behave with the calm authority or the independence of those few intellectuals who fill their day with it and obliterate the common man's distinction between work and leisure. These poor types have to write advertising copy (in Orwell's novels) or steal from their friends (in George Gissing's) or live on women (as in D. H. Lawrence's). They are what the Japanese call "a floating world", sometimes "Bohemians" was a good enough description, "young intellectuals" is now often used to describe them - irrespective of age. They are the children of Rousseau and Tom Paine.

On the continent of Europe it has been argued with some real evidence (sociological and historical) that this class of marginal *lumpen intellectuals* (as distinct from the established, bourgeois intelligentsia) was of considerable importance for the ideas and the recruitment of revolutionary political movements on both the left and the right (Stalin linked with Hitler again). They hardly seem relevant to the British scene but I pause to wonder if they don't describe many people in the last decade (usually ex-students) who have actually joined both the Labour Party and various fringe groups. In Northern Ireland I suspect that they are the backbone both of the Sinn Féin and the new Workers Party (anti-Provo); the SDLP is too bourgeois for the marginal intellectual. They could be becoming more important here; Unemployment is the broadest condi-

tion to consider, their sheer frustration at not finding work to match their proscribed talents or education is hard to measure, but very apparent when one looks and talks around.

The most famous episode of literary intellectuals becoming political is held to be "the 1930s". From my work on Orwell and the few serious studies on literature and politics in the 1930s (Samuel Hynes, *The Auden Generation*; Bernard Bergson, *Reading the 1930s*; Julian Symonds, *Popular but shrewd The Nineteen Thirties*; David Smith, *Socialist Propaganda in the Twentieth-Century British Novel*; and David Cate, *The Fellow Travellers*), I am convinced that while there was indeed some politicization of literary intellectuals, it has been (a) much exaggerated and (b) was temporary in its effects, if any. It had no effect on Communist Party policy, if occasionally intellectuals were allowed, as in Spender's brief flirtation, to ignore the line on literature, they were never able to change it. The Party was not open to ideas. Could Cornford and Bell have endured it had they lived? To recruit a few, well-known literary intellectuals gave the party prestige, but the party called the tune. To not a sprat like C. Day Lewis (whose political activities consisted a little WEA teaching) might bait a mackerel like Anthony Blunt.

Myth-making is rife. Stephen Spender's brother Humphrey organized and designed the National Portrait Gallery's "1930s Exhibition" five years ago. Going with a very leftwing, marginal, intellectual friend we worked out an impressive alternative eleven of rightwing 1930s writers - *un salon des refusés* not quite to match but not far behind the official leftwing Eleven on the walls and in the cases. The Spenders would have disqualified some of our team for age, but only by setting an artificial limitation that the exhibition was of writers first coming into prominence in the 1930s. But who was still of more influence then, the Auden circle, or Eliot, Yeats and Pound? And could MacNeice at that time rival Graves? Now Graves is apolitical rather than clearly rightwing, but he also stands for war-weariness and near-pacifism - which were surely the themes that beat upon the minds of the poets of the 1930s while still at school in the 1920s, and brought them into political awareness, not the fight against Fascism (as dramatic pictures on the exhibition walls proclaimed, half truths by association).

Most of the 1930s political writers moved back into the ivory tower during or very soon after the war. There were always fewer of them than supposed, and the shallowness of it can be seen by considering that if the Popular Front myth is untrue that "Fascism" brought them forth, and if it is more likely that it was anti-militarism and "Goodbye To All That", yet the most obvious source of politicization for most people at that time is lacking in nearly all autobiographical accounts by intellectuals of "why I became committed". Only Orwell appears to have committed himself to what he says in the north, and that led him to Spain, not vice-versa. This wants much more exemplification, but my view is that the relationship between the literary intelligentsia and the Labour movement was much closer in 1866-1914 than from 1924-39; and that if we look for their like today, we look right (alas) and not left - but that is for others to say. And universities have proved a very dangerous refuge for intellectuals. Scholars constantly recreate God's first mistake, making studentkind in their own image. Some become intellectuals despite the system, or indespise.

What has been achieved in these 10 years? There has been a modest improvement in the management of the environment: cleaner air, fewer polluted rivers, some efforts to control serve endangered species and natural habitats, a substantial amount of scientific research. Enough improvement to tempt people into complacency. But the most important

The author is professor of politics at Birkbeck College, University of London.



British beaches suffer frequent pollution



Cars vomit 200 million tonnes of carbon monoxide into the air every year

## How clean is clean enough?

The control of environmental pollution often leads to a compromise between conflicting interests. Eric Ashby explores the dilemma facing the policymakers

Pollution may be good for you. This was the headline to one of Bernard Levin's witty and iconoclastic articles in *The Times*. It was his response to the first report of the Royal Commission on Environmental Pollution published in February 1971. It puts into six words the dilemma of policymaking for the environment. For the policymakers do not have to make easy decisions between what is good and what is bad; they have to choose between one kind of "good" and another kind of "good".

Asbestos fibres cause cancer to those exposed to them in mines and on building sites; but asbestos fireproofing must have saved thousands of lives. Power stations that burn coal or oil bring cheap electricity to millions of homes; but they throw millions of tons of sulphur dioxide into the air, which may bring misery or death to people with respiratory disorders and which descends as acid rain, killing fish and stunting forests. Wetlands, drained and fertilized, augment the capacity to supply food; but this deprives birds of habitats essential to their survival. Almost every choice in the making of environmental policy is a compromise between conflicting interests.

On what principles can politicians resolve these conflicts? First, they must know what the risks are of doing nothing and the benefits of doing something. Second, they have to know what it will cost to abate the risks or secure the benefits. Scientists can give advice on the first of these questions. Economists can give advice on the second. But politicians will not seek this advice unless they are prodded by the pressure of public opinion.

That is why the United Nations conference on the environment, held in Stockholm in 1972, was an event of great significance. Nothing new or surprising was said at the conference. Indeed hours were wasted in flatulent rhetoric. But it put on record a worldwide concern for the protection of humans; it was a signal to the world that the environment was a problem for humans; it was a signal to the world that the environment was a problem for humans; it was a signal to the world that the environment was a problem for humans.

There is nothing novel about giving scientific advice to governments on environmental problems. In 1846 a geologist, de la Beche, and a chemist, Playfair, were appointed by the British government to give advice on how to tackle air pollution and there have been scores of such advisory committees since. Often the advice was not taken.

The novelty since 1972 is that much more money has been spent than ever before on the scientific foundations of environmental policy. What has been achieved? And what gaps in knowledge remain? And how has the scientific knowledge been applied?

change has been not so much in the quality of the environment as in the quality of peoples' attitudes to the environment. The strident emotional "ecohysterics" of the early 1970s, when the word "ecology" was evoked by politicians, has evaporated. While that mood lasted the voice of science was inaudible, drowned beneath the trumpets of doom.

Now the voice of science can be heard, for the environmental movement has become intellectualized. The vulgar histrionics of Paul Ehrlich (who wrote *Ramparts Magazine* about "eco-catastrophe" - "hundreds of people choking out their lives outside New York's hospitals"; the metereitric graphs in *The Limits to Growth*, hinting that pollution might halve the expectation of life. These are no longer impress the public: they are now ready to listen to scientists' sober analysis of the problems and their remedies for solving them.

For the problems are still with us. Indeed they can be stated as one problem. Many resources of nature are in short supply: some minerals, breathable air and drinkable water in some places, edible crops in others; even scenery (if you want to climb Mt. Whitney you have to make a queue weeks beforehand); only a limited number of hikers are allowed on the mountain at any one time. These limited resources cannot be rationed by market forces alone. So governments have to make laws to prevent over-exploitation.

The process for doing this can be split into two parts. First, it is necessary to know how hazardous, how contaminated, how endangered, something is; that is a question scientists can answer. Second, it is necessary to decide what is safe enough, clean enough, protected enough; that question has to be answered by politicians. For there is no such thing as zero risk or zero contamination or zero exploitation of the environment; "enough" has to be settled by compromise.

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The prime contribution of scientists has been to pinpoint the difference between pollution and contamination of the environment. Air, at ground level and unaffected by local pollution, contains some 25 different chemical substances. Chemists can measure the concentrations of these substances; toxicologists can estimate how hazardous any of them is likely to be.

Water in our river carries an even greater variety of substances; indeed really pure H<sub>2</sub>O would not support fish at all. Even nasty substances like sulphur dioxide in air and mercury in water cannot be entirely eliminated: both these come from natural sources and would be present even if people were not there at all. So the first important conclusion is that there is no such thing in nature as

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The result was the creation of smoke control areas (at the discretion of local authorities) where it is forbidden to burn soft coal with high sulphur content. The passing of the Clean Air Act was not the result of any breakthrough in science: the causes and the cures for that kind of pollution were known 100 years ago. It was an example - I could quote a dozen others - of the slow erosion of resistance to any environmental policy which threatens vested interests (the producers of high sulphur soft coal) and the British style of life (we can no longer stretch our feet before what was called "the pokeable, companionable fire" if we live in one of the six million premises covered by smoke-control orders). It is a long trek, from the scientist's capacity to say how safe or how clean something is, to the politician's capacity to decide what is safe or clean enough.

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But what about local concentrations, say in London or Chicago in the rush hour? These have been measured: they come to no more than 15 parts per million, comfortably below the level that causes headaches. Indeed police officers on traffic duty in the rush hour have less carbon monoxide attached to their bloodstream than they will have if they have four cigarettes that evening when they get home.

For scientists, therefore, control of carbon monoxide emissions does not have a high priority. But politicians cannot afford to look at it that way: carbon monoxide, along with lead and cadmium and mercury, is an emotive poison; to be controlled even if the cost is very high.

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that acid rain falls in the most remote parts of the earth: in Amsterdam Island, for instance, in the south of the Indian Ocean.

So this is now becoming much more than a European problem. Canada - like Scandinavia - suffers from being an importer of acid rain from the United States. Some 70 per cent of deposition of sulphur in Canada comes from elsewhere. Canada's own emissions are about the same as Britain's, nearly five million tonnes a year; and the emissions from the United States are about 27 million tonnes. It may be that the complaints from Scandinavia cannot be satisfied by European cooperation alone - even if that cooperation were to be forthcoming. We just do not know.

It is in these circumstances that scientists' style of thinking and politicians' style go different ways. Scientists can never compromise or bargain over facts: all they can do is suspend judgment until more facts are known. Politicians, squeezed between Treasury officials demanding cost-benefit arguments to justify expenditure on pollution control and the environmental lobby demanding immediate action to deal with what Canadians and Swedes call "the greatest natural catastrophe... the worst environmental threat ever to hit us", cannot wait for more facts. They resort to action based on political hunch rather than scientific advice.

This Canadian government has ordered a 50 per cent reduction in sulphur dioxide emissions from the electrical power industry in Ontario by 1990. This will cost the public some \$500m to achieve, with an annual cost of nearly \$100m a year thereafter. To what end? It is estimated that it will reduce acid rain over Ontario by about three per cent!

If the scientific basis for policy over sulphur emissions is insecure, the basis for policy over carbon dioxide - if there ever can be a policy - hardly exists at all. It is certain that carbon dioxide in the air has been accumulating ever since scientific monitoring began. It is certain that a layer of carbon dioxide acts like the glass roof of a greenhouse, trapping heat. It is certain that so long as we burn fossil fuels carbon dioxide will go on accumulating. If there were no other complexities it could be deduced that the temperature of the earth will rise; a point will be reached when the ice caps at the poles melt; the seas will flood all low-lying land; there will be massive changes in climate: the granaries of the world may become deserts.

But there are many other complexities. Much of the carbon dioxide released goes into the oceans, under conditions not fully understood. A global heating of the earth might change the course of air currents and the density of clouds, which in turn might counterbalance the so-called "greenhouse effect" (as though a stream of water were to run down the glass of the greenhouse). Is there any sign of this global temperature rise? For a time we thought there was: temperatures did rise a little in the first 40 years of this century; but since then they have fallen a little, despite the continuing accumulation of carbon dioxide.

It is not yet possible to separate the trend (if there is a trend) from the long-term fluctuations in climate which have gone on for millennia. But the possibility of a world turned inside out, so to speak, by massive shifts of climate is not a fantasy. Between now and the year 2000 (when it has been predicted that the possible trend should be measurable) scientists will be keeping a very careful watch over world temperatures.

And if, by the year 2000, it seems probable that the earth's temperature will rise and the floods will come what then? The only way to reduce emissions of carbon dioxide (at present known) is not to burn coal and oil. The time may come when the proliferation of nuclear power despite the hazards of radioactivity, is regarded as the safer option.

It was the 1972 conference in Stockholm that put these two gases on the political agenda: now that the public conscience is alerted, there they will stay, along with other contaminants in the environment.

But consider the problem as politicians see it. They cannot preoccupy themselves with subtle differences between correlation and causation; they are more concerned with the

have legislated to achieve the acceptable level. We see this process going on at present over what are to be acceptable levels of lead in air.

Lead is a nasty and insidious poison, but since Roman times it has had many valuable industrial uses. The level at which lead in air produces clinical symptoms is generally agreed among scientists, and all industrial countries have regulations to prevent lead rising to those levels. But intensive research over the last 10 years has shown that concentrations below this danger level do influence the biochemistry of the blood. There is no evidence that this particular influence harms health; indeed it occurs at the lead levels found in the blood of people in such remote communities as Australian aborigines and Kalahari bushmen.

But there is presumptive evidence that children exposed to levels of lead below the generally acknowledged safety level suffer from certain kinds of mental retardation. I said "presumptive", for the evidence is confused by extraneous factors.

**The pressure of public opinion is now forcing politicians to decide what is safe enough and therefore clean enough to be acceptable**

Children who live in areas where lead levels are above average are likely to be near (for example) a factory that reconditions car batteries, or a complex interchange of motorways (like Spaghetti Junction near Birmingham). These are not areas occupied by families which can afford a well-balanced diet, good schooling, or fresh lead-free paint in the living room. So we may (the word has to be in italics) be dealing with children disadvantaged not just by higher levels of lead, but also by other factors.

In science, the step from correlation to causation is a dangerous one to take. There is, for example, a high correlation between the number of churches and the number of pubs in the postal districts of London, but this does not mean that the churches cause the pubs! So most scientists are less than enthusiastic about the present emotive campaign to get lead out of petrol. This is not because they think lead in petrol is harmless - it isn't - but because they doubt whether this is the most beneficial way to spend money on the abatement of lead in the environment.

A more urgent need is to get it out of drinking water. In three million households in Britain the first draw of water from the lead pipes in the morning contains more than the World Health Organization level of permissible lead. This is an undisputed fact.

But consider the problem as politicians see it. They cannot preoccupy themselves with subtle differences between correlation and causation; they are more concerned with the

classical difference in philosophy between "is" and "ought". What they ought to do in a pluralistic democracy is commonly what they regard as acceptable to the public (especially their own constituents).

Scientists can, and indeed have, described accurately how clean air is, in respect of its lead level. They are still in some doubt about how safe this level of cleanliness is. The pressure of public opinion is now forcing politicians to decide what is safe enough and therefore clean enough to be acceptable. That is their job, and it is important to distinguish it from the jobs of scientists and economists: it has a moral dimension on which they can give no advice.

The interesting point is that politicians get no guidance, other than guesses as to what would be politically expedient, on how to derive a decision about how clean air or water ought to be from scientists' advice about how clean and how safe for health air and water are.

Scientists are prepared to make guarded statements (scientists are adept at hedging their bets) to the effect, for instance, that an average ambient concentration of sulphur dioxide not exceeding 80 micrograms per cubic metre is not likely to be a hazard to human health. This does not mean that no one at all will suffer from this concentration, but that only a very few exceptional people will. They are prepared to add, if pressed, that an average concentration of 100 micrograms is not likely to be a hazard for pine trees and that lichens are more sensitive and are at risk at concentrations as low as 50 micrograms; all accompanied by observations about the increased susceptibility of living things to sulphur dioxide if ozone or oxides of nitrogen are present. The very use of the formula "micrograms per cubic metre" exposes the weakness of scientific advice to politicians. It is the language of reductionism: looking at one facet of reality in isolation.

Politicians have to use the language of holism when they make their decision. Do they want to protect only the great majority of people? Or all people? Or pine trees too? Or even lichens? In making this decision they have no advisory philosopher to complement their advisory scientists and economists. Indeed there is no agreed environmental ethic on which the political decision could be based.

Ten years after the Stockholm conference we have intellectualized environmental politics a good deal. This, as a recent Earthscan paperback, *Stockholm Plus Ten*, puts it, has caused "profound changes in attitudes to the environment over the last decade". The gap between the scientific assessment of an environmental hazard and the public perception of the hazard has been narrowed. But we still lack the framework of an environmental ethic to act as a foundation for that elusive word "enough".

The author was the first chairman of the Royal Commission on Environmental Pollution. He is the author, with Mary Anderson, of *The Politics of Clean Air*.

## Failing to please unemployed youth

**I. K. Wymer calls for a positive youth policy that would provide mixed further education and training for all**

School-leaver unemployment has been rising for over a decade with insignificant response from the education service. While the majority of schools have continued to concentrate resources on A levels, further education colleges have rarely ventured beyond conventional vocational courses. A few colleges have taken the initiative in meeting specific, easily identifiable needs - such as English language for ethnic minorities. But the general failure to make suitable provision for the unemployed youth with the Manpower Services Commission. Why has the education system failed?

Since the 1944 Education Act, local education authorities have been required to meet demand for education from 16-18-year-olds. What does this mean in practice? If "demand" is interpreted as "what people ask for" the intention of the Act has clearly been frustrated. Every year hundreds of students ask at colleges and to some extent in sixth forms for subjects not offered, or which are withdrawn because numbers are too small. Whether or not individuals can take a course at their local college depends on a dozen or so of their neighbours wanting the same. If not, they may, if persistent, find a suitable course elsewhere, but unless the level is degree equivalent he is unlikely to get much help in his quest.

Although colleges publish prospectuses, and regional advisory committees compile lists of courses in further education, these are of little value to applicants not wanting one of the well-established options. Local authorities publicize information on post-16 opportunities, but a comprehensive student guide to full-time and part-time studies in further education and schools is a rarity.

Some schools offer only A levels and repeat O levels, while colleges assess demand with varying degrees of haphazardness. Even colleges with a system for assessing industrial and professional requirements are vague on community needs. How many ask people what they want and then systematically assess the answers? Only a minority have effective methods for anticipating demand and for forward planning.

Student attitudes to staying on are strongly influenced by school experience. Leavers with five or more O levels or good CSE grades are encouraged to stay at school for A levels unless they have career intentions strongly indicating another path. Advice given to more modest achievers varies from school to school and sometimes from one careers officer to another. There are examples of students being advised to take A levels in school when, for example, a part time Ordinary National Certificate in further education is more appropriate.

Modest achievers, late developers, are often encouraged to seek work before they are ready. The assumption persists that 16-year-olds other than those with honours degree potential, should start work even when there are no jobs for the unqualified.

Home background is equally significant. Parents with experience of further or higher education are more likely to encourage staying on. This influence is obviously greater in middle-class than working-class families. Willingness of teenagers to remain dependent is also relevant: reluctance to impose a burden on parents causes some students to opt for a Manpower Services scheme with a training allowance.

In the absence of encouragement from school or home, teenage attitudes assume greater importance. As there are always vacancies on courses of some kind there is a sense in which there are opportunities available. But unusually strong motivation is necessary to overcome teacher

discouragement and family apathy or opposition. As Roy Hattersley said: "The determined late developer will always find his (her) way through. But for every Samuel Smiles there are 100 slightly less intelligent, slightly less motivated men and women who want and need to extend their education but find it impossible within the existing system."

The uneven pattern of encouragement from home and school means that any judgment as to whether young people get what they need is arbitrary. Indeed, many of the arguments used to justify the raising of the compulsory leaving age to 16 apply to the 16-18s. Fifty per cent, the approximate proportion who stay on full-time beyond the compulsory stage, does not reflect real need or genuine demand. There are wide variations from area to area: more stay on in the South than the North, and more in Wales than in England.

Excluded teenagers (and the fact that they exclude themselves does not affect the argument) remain unemployed for long periods because they lack training and education. Youth opportunities schemes protect some from the labour market for a period but, with few exceptions, do not provide the training necessary for skilled jobs, which are the only kind available.

In reality there has been little attempt to assess the extent to which the needs and requirements of the over 16s are met in schools or colleges. Parent-teacher associations articulate the demands of the professional classes; in working-class areas there has long been an enormous unarticulated "demand", which local authorities, labouring within cash limits, have feared to recognize.

In view of the inadequate response of the education system to the needs of the unqualified, it is not surprising that the Government has set up an alternative agency, the Manpower Services Commission. The commission is responsible for implementing the New Training Initiative and it is intended that the main responsibility for training will rest with industry. Colleges will be in the position of contributing by providing day or block release education, without any control over the NIT projects they service.

This will mean, in effect, two systems of further education: one for those considered worthy of education, the other for the unqualified who are regarded as deserving no more than basic skills training. The fact that there are, in general, no maintenance grants for education means that it is reserved for a better off. Students over 16 on courses in education, in schools and colleges, will continue to be largely middle class, whereas the new training schemes will cater largely for the working classes.

Existing arrangements ensure that young people are divided into first class citizens, who are able to continue to higher education and join the privileged elite, and second class citizens given basic training. Without fundamental changes in economic policy, the vast majority of the latter are likely to remain unemployed. In reality, the use of the Manpower Services Commission rather than the education service to provide projects for the unemployed is a means of preventing genuine further education for all.

The urgent need is for radical reform of the education service to provide further education for all as part of a positive policy for youth. This obviously implies a new concept of education and removal of the meaningless distinction between education and training. Without major reform to coordinate what is available there is no possibility of equal opportunity for all.

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by Peter Clarke

**H. H. Asquith: Letters to Venetia Stanley**  
selected and edited by Michael and Eleanor Brock  
Oxford University Press, £19.50  
ISBN 0 19 212200 2

Friday September 4, 1914 was a busy day for the Prime Minister, H. H. Asquith. Britain had been at war with Germany for a month, and the British Expeditionary Force in France was regrouping after the retreat from Mons. When the Prime Minister made his speech at the Mansion House, that morning, the atmosphere was unusually tense. An official luncheon followed immediately, and no sooner was he back at Downing Street than he had to preside over a meeting of the cabinet at 3pm. Knowing that he was bound to leave at 5pm for Hackwood House in Hampshire, to dine with the Queen of the Belgians, he had virtually no time for even the most vital correspondence. Hence he "had to make the most of a few little interstices" during the meeting itself in order to finish one letter. "I am writing this at the Cabinet & have to be careful," he explained in it to his friend, Venetia Stanley.

Venetia was thus not disappointed of her daily letter. "Have I ever missed?" Asquith wrote the next day. "I confess that I have rarely written under greater difficulties. But writing had by then become an act of faith by this outwardly impressive man of 62 set great store. At the end of July he mentioned 'calculating in bed last night that, roughly speaking, since the first week in December I must have written you not less than 170 letters'. The schedule of more than 500 surviving letters in fact shows 133 in these eight months, with another 151 to follow before the end of 1914, an average of more than one a day. In January 1915 this rose to 45, and 48 in February. The climax came with 58 in March, dropping back to a mere 35 in April, then roughly one a day in May, until, on the twelfth, there came an abrupt end to the intimacy. "As you know well, this breaks my heart," Asquith wrote curtly in response to the shattering news of Venetia's engagement to Edwin Montagu, a member of his own cabinet.

This was the same H. H. Asquith who had shouldered the work of the War Office, as well as the premiership, from March to August 1914, before making way for Kitchener on the outbreak of war. As he explained to Venetia, "it requires the undivided time & thought of any man to do the job properly, and as you know I hate scamped work." Every prime minister will have his own concept of scamping, in himself as in his subordinates. Now Asquith clearly had to bear a great deal of pressure during this period. He told his wife Margot in April 1915: "These last three years I have lived under a perpetual strain, the like of which has I suppose been experienced by very few men living or dead." Yet his way of coping with it seems, at first sight, curious, even for a notable exponent of unflappability. During the last week of July 1914, amid the mounting international crisis, the Prime Minister gave Venetia an account of how his time was consumed. "As Margot was tired & in bed, I improvised a little dinner here, consisting of the 2 McKennas, Masterton Smith & myself. We played some really amusing Bridge - (though in the end not much money changed hands. My partner won 6 hearts against 5 royals & only lost by one trick." These letters are an extraordinary revelation, as everyone who troubles to read through them will surely agree. But they reveal what less readily command assent. Punctiliously edited by Michael and Eleanor Brock, they stand as a unique record of the candid reactions of a complex

and intelligent man during two years at the pinnacle of his power and responsibility. The earliest letters from Asquith to Venetia, a daughter of the Liberal peer Lord Sheffield, date from 1910, but only in 1912 did the correspondence pick up, and it is the virtually daily series from December 1913 to May 1915 which forms the bulk of the volume.

The letters have been known about, in one way or another, for quite a long time. After the First World War, Venetia was induced to show many of them to Lord Beaverbrook - she was said to be his mistress - and he used them for his own distinctly non-Asquithian purposes. Asquith himself drew upon them, re-styled as "diary" or "notes", in compiling his memoirs, as did his daughter Violet in her later writings. The biography of Asquith by Roy Jenkins was also notable for the use it made of them. The net result has been at best a selective presentation of fragments, at worst a garbled and polemical corruption of the text. This substantial scholarly edition puts everything into perspective, both enabling and demanding a reappraisal of Asquith and his relationship with Venetia.

The letters offer some useful aperçus upon Asquith's personality, and on the whole do credit to his perspicacity and self-knowledge. On August 1, 1914 he wrote that "if it comes to war I feel sure (this is entirely between you and me) that we shall have some split in the Cabinet", preparing himself for the loss of Morley (and possibly (tho' I don't think it) of the unrepentable). The latter was Asquith's soubriquet for John Simon - about whose pusillanimity he was exactly right. Morley duly resigned; so Asquith's only surprise (not a big one) was the resignation of John Burns. He knew his cabinet well, and knew well too how to handle it, making it all look deceptively easy. He reported that "not for the first time (perhaps the last) time I was able to devise a form of face-saving words which pleased everybody" over Welsh Disestablishment in August 1914. Looking back, in a fictive second person, on his record in March 1915, he claimed: "You had, or acquired, a rather specialised faculty of insight and manipulation in dealing with diversities of character and temperament."

As a peacemaker and political broker, he moved with a sure instinct, rarely allowing personal feelings to divert him from the main chance. It is notable that, although never close to Lloyd George, Asquith treated him with tact and respect throughout this period; and conversely did not allow his friendship for Reginald McKenna to compromise him in this connexion. Thus, mediating between them in March 1915, Asquith was "glad to say that in the end I not only lowered the temperature, but got them into an almost friendly mood." His letter the next day showed his gratification for "the same pair have just been and spent over 12 hours with me, cooing like sucking doves in a concerted chorus of agreement and appeal..." It was not to last, but while it lasted this political equilibrium undoubtedly depended upon the exertion of Asquith's peculiar gifts. That Lloyd George saw McKenna as his real rival and antagonist, and ultimately as the source of much poison in his relations with Asquith, who was otherwise fairly well disposed towards him, is an impression corroborated from the other side in the published diary of Frances Stevenson, Lloyd George's mistress. Considering that the Liberal party broke up into Asquithian and Lloyd Georgian factions, what is remarkable is the lack of any deep-seated animosity between the two principal camps.

Turning from Asquith's public life to the correspondence itself, it must be said at once that these are love letters. They cannot possibly be regarded as merely sentimental, and their erotic charge clearly signalled a

## BOOKS

**'Don't leave this on your table . . .'**



H. H. Asquith in 1913

threat to Margot. The more innocent gloss which she at times put upon them was, to put it at the least, innocent on her part. Her contention that "he shows me all his letters & all Venetia's" does not ring true as a literal account, whatever the admirable canons of liberality observed in the Asquith household. This does not mean, however, that Venetia was Asquith's mistress. It may have been so - who can tell? - but the tenor of the letters suggests otherwise.

There were two notable changes of gear in the relationship. The first came at the beginning of 1912 when Venetia really emerged from her schoolgirl role as Violet's friend and appeared in a new light to the prime minister. "Suddenly, in a single instant, without premonition on my part or any challenge on hers, the scales dropped from my eyes," he wrote three years later. It was a moment on which he looked back both fondly and frequently - it was when "I made my great discovery of the real you." This is a suggestive phrase, to be sure, and one which Edwardian fiction could endow with explicit sexual connotations. But Asquith seems only to have been playing with it in such references as "such a sweet and characteristic expression and revelation of your real self, or the sardonic tribute." Venetia was (as you always are) your real self today: sweet, resolute, undecaying.

It is notable, all the same, that one of these phrases dates from August 1914, coinciding with another statement which lends itself to an obvious construction: "I wd give more than I can put down on paper to be able to - some sentences are better left unfinished." Obvious or not, the idea that Asquith was in any position to consummate his passion for Venetia at this juncture - busy man as he was - must be discounted as contextual evidence. A further contemporary comment provides confirmation of the proportion of physical to emotional involvement. On July 29 there comes Asquith's thrilling assurance: "I shall never forget a week ago to-night." This tempestuous occasion, however, is later identified from his pocket diary as "a most divine hour I spent with you at Mansfield St late on July 22nd" - that is, at her own parents' house, on terms of tolerable civility. It needs only wonder if you have forgotten it? To set the scene. There was undoubtedly a second change of gear in the relationship in July-August 1914, but the intensity

of the verbal bombardment is pretty certainly how it expressed itself.

Considered intimately, therefore, the liaison was probably not carried as far as might initially be supposed. But there was clearly much more in it than was apparent to members of Asquith's circle, for all their ready acceptance that the Prime Minister, as he put it himself, manifested "perhaps a slight weakness for the companionship of clever and attractive women." This served as his cover. It meant that his contacts with Venetia needed no apology provided nothing happened to flout the indulgence they were accorded by the two families and friends alike. So the existence of the letters aroused no suspicion, though their substance would undoubtedly have done so at a point to which Asquith was not oblivious, as his effusions began to transgress the boundaries of convention.

"Don't leave this on your table or in someone else's envelope," he warned at one point, and later professed himself "rather alarmed at the family curiosity as to the contents of my letters". Only when Venetia started her course at the London Hospital did the arrival of a messenger, delivering letters from the prime minister to a trainee nurse, in itself cause embarrassment. On Asquith's side, it is pretty clear from internal evidence that he did not rely upon the official arrangements for mail in 10 Downing Street: nor was it simply left to Margot to post the letters she happened to find in the front hall - her subsequent recollection notwithstanding. In practice, the Prime Minister made a point of seeing that his letters to Venetia were correctly stamped and often put them into the box himself. Probably on his walks across to the Athenaeum.

At the Athenaeum - "the only place where I am free" - he was, of course, safe from Margot, whose regime he undoubtedly found taxing, especially when he sought respite from public affairs. In Margot he had a loyal, vivacious, outspoken supporter; but to be cooped up with her, rehearsing in an impetuous, undisciplined way the disputes of the day, was not the way he wished to spend his nights. When he had married her in 1892, as his second wife, she had opened doors for him in creating a stylish social scene which he certainly enjoyed. By 1915 she was adopting a more tragic aspect, brooding on "the knowledge alas! that I am no longer young & I dreads; in fact I always observe - as men get older they like different kinds of women..." Asquith was not unfaithful to Margot. He regarded marriage, in 19 cases out of 20, as exhibiting "all the many shaded gradations between selfism, colourless acquiescence and habit, a more or less workable *modus vivendi*, and hunger & misery." His own marriage was sustained, until his death, providing the framework for a vigorous and varied family life: evidence in itself that some *modus vivendi* had been found.

It is not very mysterious what Venetia had to offer Asquith. Aged 27 in 1914, presentable, well-connected, good-natured and trustworthy, she was well qualified for an *amie amoureuse*. What Asquith had to offer was a flattering degree of attention from a man of great eminence who was ready, indeed eager, to cut through the veils of discretion and formality with which he was customarily surrounded. It was an implicit trade-off between sex and power, mutually fulfilling in the way that each fed off the other. This was the phases of the affair had a private and public synchronisation. It was no accident that it began at a time of political tension in March 1912 - "I remember it was on the eve of the Coal Strike, which gave me one of the most trying experiences - up to then of my public life." Asquith recalled. Thereafter, the emotional level was commensurate with the trying problems in British politics from which Asquith sought relief. "Bless you beloved," was the affectionate conclusion to his letters. But as the crisis over Irish Home Rule

impinged more sharply in July 1914, the note intensified: "My darling - you are dearer to me than I can tell you." Moreover, Venetia was now told, for example, of an interview "which is most secret" between Asquith and Northcliffe, with none of the precaution over mentioning actual names in which allusions to earlier meetings with Carson had been shrouded.

When Ireland itself came to be eclipsed by the imminent threat of European war, Asquith's endeavours and judiciously sealed new heights. He claimed that "I want you to keep an account with what is going on step by step in these anxious days", and laced his letters with the latest information. The disposition of British troops in France - "all this is *most secret*" - was revealed. His only regret was the lack of "something like a code that we could use by telegraph" so as to cut out postal delays. "Do you think it is impossible to invent something of the kind?" he asked Venetia. The bright idea of the prime minister sending telegrams full of hot military secrets to her own devising is surely beyond the reach of satire. Asquith in fact had to make do without this refinement in his indecent urge to spill the beans. On October 27, 1914 he wrote under some check of "a terrible calamity on the sea, which I dare not describe, lest by chance my letter should go wrong." Yet, on October 28, this information, kept from the Germans for another five weeks, was given to her fully as "the sinking of the *Audacious* - one of the best & newest of the super Dreadnoughts, with a crew of about 1000 and 10

13.5 inch guns, off the North coast of Ireland." Name, armour, crew, position - what more could German intelligence have wanted? The *Dardanelles* produced the same effect a few months later. "This as I said is supposed to be a secret..."

What Asquith seems to have done was to sublimate political tension into sexual fantasy, finding the release which was impossible with Margot in his ejaculations for Venetia. Meeting just often enough to keep him going, with sufficient constraint to ensure that his fantasies did not run much beyond a pressing of the hand or a fleeting farewell, these were paper transactions, nourished chiefly on Asquith's over agitated imagination. "Do you ever 'day dream'?" he asked. "By which I mean lean back in your chair & close your eyes, & reconstruct the background of memory. Half forgotten events & people live again, old hopes & fears, critical moments, the seemingly unimportant but the really meaning choices & decisions of one's life." This is not how one would generally picture Asquith behaving. Here, however, is another passage, of a rather earlier date, which shows its author in exactly this state:

I either feel depressed or my cursed habit of sentimental castle-building leads me to harp back upon the past. Scenes the vividness of which seem to make them real dominate my mind & I lose, for moments at least, my self-control. And then there is the inevitable reaction. Oh! the mysteries of human feelings.

It was not Asquith who wrote this in June 1899, but Beatrice Webb in her diary. She had already been married to Sidney for seven years, seeing in him qualities which she had not found in other men of her acquaintance, like Asquith, whose captivity by Margot she deplored. But suppose we day-dream that Beatrice might, as is conceivable, have taken Margot's place from 1892? What emotional as well as political functions might thereby have been served? At any rate, one thing seems likely: we would not now possess a handsome volume of letters to Venetia Stanley.

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## BOOKS

## Death and dishonour

*The Rapes of Lucretia: a myth and its transformations*  
by Ian Donaldson  
Oxford University Press, £15.00  
ISBN 0 19 812638 7

The legend of Lucretia, as Ian Donaldson argues in this meticulous study of some of its historical variants, raises a number of intriguing problems. Why did Lucretia stab herself after being raped by Tarquin? Was it to purge pollution, avert possible pregnancy or family dishonour, or was it, as some of the more cynical male commentators have suggested, in guilty expiation of sexual pleasure experienced during the rape?

Lucretia's suicide has been imbedded through the centuries as an exemplary heroism, not least by those sexual ideologists for which a woman's chastity is more precious than her life: but the deed won little favour from Saint Augustine, who viewed it as a heinous self-murder and inquired, disconcertingly, why we should praise a woman for killing an innocent victim (herself). If Lucretia's will was pure, then for Christian theology the defilement of her body was no sufficient motive for death – though the legend takes an extra complication here, since Lucretia concerned to Tarquin's rape in order to lend off his threat to murder and publicly dishonour her.

This apparently unequivocal story, as Donaldson's book richly illustrates, is in fact a troubled, ambiguous one, full of what the post-structuralists would term "undecidability". It is, moreover, two stories in one: the rape of Lucretia is supposed to have led to the founding of the Roman republic, and for some versions of the tale it is Lucretia's avenger Brutus, not the raped woman herself, who figures as the central actor. Among other things, then, as the second half of this book demonstrates, the fable brings into focus the conflict and interrelation between private and public worlds, female suffering and male political action.

Ian Donaldson examines a wealth of literary and artistic transformations of the original story with impressive scrupulousness and erudition. He is good at showing how the early Shakespeare's handling of the legend is marked by a radical tentativeness about its deeper implications, and rightly sees Richardson's *Clarissa* as the central English reworking of the material. (Does *Clarissa* alter her rape die "deliberately" or not? What is the meaning of her physiologically mysterious decline?) Many other variants are submitted to equally illuminating analysis: but for all its rigour and sensitivity the book leaves a certain dissatisfaction. In the end, Donaldson seems too modestly submitted to his own materials, too little ready to speak out boldly in his own voice and theorise some of the thorny questions he himself has raised.

We might ask, for example (since Donaldson does not do so directly himself), which is the more sexist attitude: to glorify Lucretia for preferring death to dishonour, or to condemn her suicide as mutually sinful? If we properly reject the view that a raped woman is "polluted", dividing her from mind in wise enlightenment, do we not thereby risk evading certain deeper questions of the unconscious, which as with *Clarissa* may work its way through the body in dissection from the mind? Is the shift in interest from Lucretia to Brutus a significant part of the history of patriarchy? Donaldson draws surprisingly little on the original theorizing about rape, and the painful testimony of its victims, which today's women's movement has produced; yet some of the most recent aspects of the legend might well be clarified by such research.

*The Rapes of Lucretia* has scholarship and critical insight in abundance; but it leaves one wondering



Henry Fuseli's illustration for *Hamlet*, 1805, taken from Edward Hodnett's *Image and Text: studies in the illustration of English literature* (Scolar Press, £17.50). Hodnett's comment on Fuseli's drawing is that it is "arresting, but perilously close to laughable".

whether a feminist critic might not have been more decisive and adventurous in her handling of this oddly enigmatic tale.

Terry Eagleton

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## Broad Scots

*Walter Scott*  
by Thomas Crawford  
Scottish Academic Press, £3.25  
ISBN 0 7073 0305 2  
*Hugh MacDiarmid (C. M. Grieve)*  
by Kenneth Buttlay  
Scottish Academic Press, £3.25  
ISBN 0 7073 0307 9  
*Robert Henryson*  
by Matthew P. MacDiarmid  
Scottish Academic Press, £3.25  
ISBN 0 7073 0306 0  
*Robert Ferguson*  
by David Dalziel  
Scottish Academic Press, £3.25  
ISBN 0 7073 0305 2

Too many histories of Scottish literature have been marred by an inability to choose between a rigid historicism and the psychomachia. The few available textbooks are littered with absurd historical generalizations and with blighted careers, often bizarre pseudonyms, easily deaths and flawed masterpieces, recognizable critical shorthand for works that fit no obvious category. Psychological reconstructions on the one hand and generalizations about "Scottishness" on the other have signally failed to illuminate what is distinctive and important in Scots writing.

Under David Dalziel's expert editorship, the Scottish Academic Press has launched a series on Scottish literature with monographs on four of the most problematic writers in

the canon. The revisionist aim of the series and its determination to avoid biographical and historicist fallacies are carefully established in each of the volumes. The underlying message is that these individual and complex careers cannot be reduced to either personal or nationalist mythologies.

Thomas Crawford's ground-breaking study of Walter Scott is now nearly twenty years old; it does, however, merit its revision and reprinting. Crawford revealed a more vital and passionate figure than had been the norm and one less determined by his social position and chosen profession. Scott's Toryism was tempered, as Crawford shows, by an intense awareness of, and love for, the traditional materials of Borders poetry and legend, and by a willingness to accept the dialectical values generated by setting his own politics against romantic Jacobinism (never far from Jacobinism). At the same time, though, Crawford's courageous and incisive enough to accept that Scott did indeed "sell out", that his work was hurried, uncrafted and fundamentally unsatisfactory, even in his best books. Lukacs, and his followers, saw Scott's virtues solely in his faithfulness to a predetermined historical schema. Crawford, on the other hand, was prepared to separate baby and bathwater with great care and to retrieve the real poetry from the dreadful prosiness of much of Scott's work.

Kenneth Buttlay's account of Hugh MacDiarmid was also first published in 1964. Between then and his death in 1978, MacDiarmid wrote little of lasting worth; his reputation, however, continued to fluctuate wildly in Scotland and beyond. Even posthumously, MacDiarmid's place in the wider canon is not assured. Kenneth Buttlay's great achievement was, like Crawford's, in separating the real, irreducible poetry MacDiarmid was capable of creating from a political and pseudo-political nonsense that gradually became a tiresome shorthand for works that fit no obvious category. Psychological reconstructions on the one hand and generalizations about "Scottishness" on the other have signally failed to illuminate what is distinctive and important in Scots writing.

Under David Dalziel's expert editorship, the Scottish Academic Press has launched a series on Scottish literature with monographs on four of the most problematic writers in

own poem: the great poet of "On a Raised Beach", with its superb grasp of tone and atmosphere, indulged his irritatingly glibly humour to the extent of declaring (in verse, but with every indication of believing it) that "Shir-ogoroff's Psychomachia" was "great poetry". MacDiarmid's affection for obscure Baltic scholars was his undoing. Kenneth Buttlay restores a more attractive and valuable MacDiarmid where once the politically confused obtuseness was in the forefront.

Robert Henryson and Robert Ferguson have languished too long in the shadows of Chaucer and Burns. David Dalziel, whose synoptic grasp of eighteenth-century Scotland is unparalleled, gives us a Ferguson who is squarely within a healthy tradition of vernacular verse which has nothing to do with the stoddy nationalism of many of the later imitators. Perhaps in his dual role as general editor of the series and the first scholar to offer a full-length and comprehensive study of Ferguson, Professor Dalziel introduces his account with a long chapter on "Scottish Writers" which denationalizes the essence of Scottish poetry, showing, as Edwin Muir had shown before him, the need for cross-fertilization with other cultures, English, French, German and classical. Ferguson was not the crazed, spontaneous, "heaven-taught plowboy" we were once asked to accept in the mould of Chatterton and Clare. He was a conscious artist with a powerful (though unstable) intellect and Dalziel manages to reveal the springs of his artistry and thought in the social and cultural fabric of eighteenth-century Edinburgh and St Andrews.

Matthew MacDiarmid's discussion of Henryson is perhaps the only disappointment in the series so far, though it would be wrong to ignore the difficulties of his task: the Dunfermline dominion remains a shadowy figure and MacDiarmid can only offer "facts" interlarded with "speculations" which are interesting but beside the point. His unwillingness to take the poetry itself as a completely adequate starting point weakens the method and blunts its findings.

Expertly and rigorously written and edited, these four studies represent a sensitively revisionist (and readable) approach to a historically and rhetorically complex literature which has not been well served by its critics. It remains to be seen whether and where Scott, MacDiarmid, Ferguson and Henryson will take a place in the general fabric of literature in English. Exceptionalism merely ducks the issue.

Brian Morton

*Brian Morton is features editor of THE TIMES.*

## Dissecting the mind

*The Borderers*  
by William Wordsworth  
edited by Robert Osborn  
Cornell University Press, £65.00  
ISBN 0 8014 1283 8

Wordsworth's only play and his first major work stands, as Robert Osborn notes, "at the threshold" of the poet's "great decade" (1797-1807). It was composed between 1796 and 1797 and in the year of its completion was turned down by the manager of Covent Garden. According to Elizabeth Threlkeld, "the metaphysical obscurity of one character", as if he could not grasp how the principle of action rather than of abstraction had eluded him, Wordsworth put the failure down, "to the depraved State of the Stage at present". It is not for its superficialities in point of dramatic art that the publishers of this new edition justifiably recommend *The Borderers* as a "masterpiece of the English Romantic movement, too long neglected".

The "meddling intellect / Mis-shapes . . . / We murder to dissect" words Wordsworth in "The Tables Turned" (1798). In *The Borderers* there is an inalienable connexion between Oswald's assertion: "We dis-

sect. The senseless body . . . why not the mind" and the literal act of homicide into which he betrays the ingenious Marmaduke. Oswald arranges for the destruction of the guileless Herbert in order that he may prove formally to Marmaduke the superiority of a world of pure intellectual freedom – a world beyond love, pity and guilt, beyond good and evil. In portraying the depravity engendered by the self-conscious intellect operating independently of human emotions Wordsworth is, of course, offering an attack on some of the principal assumptions of the rationalist philosophy of William Godwin.

In the 1805 *Prelude* the poet was to recall his own phase of Godwinian rationalism when, in the wake of his disillusionment with the French Revolution, he fell into such a rage for explanation as shattered the integrity of his consciousness and violated all sense of participation in a world of relationship. However, the fundamental preoccupation of *The Prelude* is the retrospective vision by which that had not been apparent when the mind was "stuck" wearied out with contraries. The poem traces the stages of development from a consciousness at one with nature, through the divisions and deprivations of self-consciousness, to the full re-cognition of the unifying powers of the "feeling intellect" or imagination, this last stage celebrated as a kind of higher synthesis accommodating the experience of dislocation and pain. The special and neglected significance of *The Borderers* in Wordsworth's development is that it focuses not on reintegration but directly on the warring elements of a mind in the very process of fragmentation.

Oswald and the other principal characters in the play enact the potentialities of Wordsworth's mind when it was "stuck" and corrupted upwards to the source. The lines of *The Prelude* in which the poet mocks the corrosive analytical tendencies of his own past – "Low glorious / The freedom of the individual mind" which "adopts / One guide – the light of circumstances, flashed / Upon an independent intellect" – were incorporated from *The Borderers*, where Oswald had praised Marmaduke as murderer: "You have obeyed the only law", the "immediate law / Flashed from the light of circumstances / Upon an independent intellect". In the stir and stress of unregenerate energies in the psychodrama we encounter the full degree of the poet's self-alienation.

Not that all is absolutely cheerless, dark and deadly in the play. Wordsworth's "tragedy" is founded, in the last resort, on a psychology rather than a metaphysics of evil. While, at the end of the work, Marmaduke is left newly initiated into a world of suffering, the remorse he feels (and which distinguishes him from Oswald) links him to a point on the ultimately cosmic cycle of regeneration which Wordsworth was to affirm in *The Prelude*. What the play does forcibly convey, with its emblematic shedding of the blood of innocence, is the appalling nature of the sacrifice that must be offered if complete or adult vision – a vision of the "Tumult and peace, the darkness and the light" as "workings of one mind" – is to be achieved.

Speaking of the transition in the manuscript of the individual mind from consciousness to self-consciousness, Geoffrey Hartman has said that "it is the Romantics who first explored the dangerous passageways of maturation". *The Borderers* is a crucial document for the exploration of the Wordsworthian *rites de passage* and Robert Osborn's edition brings it definitively into view. His volume lays out the textual development of the play from the earliest fragmentary drafts through to the earliest complete version (surviving in a fair copy in partial text with the version revised for publication in 1842). It maintains, in comprehensive, detailed, lavishly explicit methods of presentation and high editorial standards of its predecessors in the Cornell Wordsworth series.

Aidan Day

*Aidan Day is editor of the "Tennyson Research Bulletin".*

## BOOKS

## The proper bounds of self

*Liberalism and the Limits of Justice*  
by Michael J. Sandel  
Cambridge University Press, £17.50 and £5.95  
ISBN 0 521 24501 X and 27077 4

Amid the sprawling Rawls industry, Michael Sandel has written a genuinely important and philosophical book on the nature and limits of Rawlsian liberalism. Sandel is able to identify the limits and deficiencies of the contemporary liberal vision because he possesses a penetrating understanding of the power and moral and intellectual force of that vision. Sandel's work is written with style and precision making it equally valuable for both student and specialist.

Sandel's argument concentrates on two defining features of Rawls's version of liberalism: the priority of the right over the good (deontology); and the priority of the self over its ends (the deontological self). Sandel seeks to demonstrate that contemporary liberalism is based upon a certain conception of the moral self and the knowing subject which derives from Kant. His undertaking is then to expose the contradictions in this conception of the subject, and to show why it is, ultimately, untenable. If the argument succeeds, the liberal understanding of morals and politics is shown to be founded upon a contradictory and incoherent theory of the self.

What are the proper bounds of the self, and how does one secure the integrity of the moral subject? According to Kant, unless one can locate a basis for the autonomy of the self completely detachable from the contingent factors and circumstances that empirically condition experience, both knowledge and morality would be reduced to incoherence.

Rawls takes this as the starting-point for his basic definition of the liberal self: a disembodied or situationless subject whose essential identity is constituted apart from any empirical attributes or desires. It may possess and independent of any ends it may choose for itself. Justice is the primary social virtue because it relates to original selves who construct principles of social life in a state of complete autonomy in respect of empirical conditions and circumstances.

Rawls wishes to secure the autonomy of the self by asserting its priority to its ends and attributes. However, the problem raised by Sandel is that without some effort to situate the self and to define what empirical conditions are essential to it, the moral subject is in danger of either shrinking to vanishing point, in which case it becomes impossible to see why it is so important for its dignity and autonomy to be upheld, or expanding into a universal subject and thereby negating the primacy of plurality, which Rawls takes to be fundamental to his theory and the lack of which he roundly condemns in utilitarianism. A minimal self radically distinguished from what it possesses and what it chooses turns out to be incoherent both in its relations with its own ends and attributes and in its relations with other selves.

One major problem with Rawls's theory is that he assumes that the assets and resources that are shown not to be essential to the identity of the moral and political self should automatically devolve to a social pool so that society can distribute shares and benefits without any injury to the individual's rights and entitlements. However, Rawls is incapable of giving a sufficiently rich account of community to be able to explain why this should be so. Therefore Sandel concludes by arguing for a "constitutive" understanding of community that would be capable of providing an account of why unattached assets might be thought of as common assets. This involves appeal to an intersubjective concept of the self.

As the independent self finds its limits in those aims and attachments from which it cannot stand apart, so justice finds its limits in those forms of community that engage the identity as well as the interests of the participants.

Another important contradiction exposed by Sandel is that whereas Rawls's theory presents itself as a contract theory, placing its emphasis on volition and choice, the voluntarist interpretation of the original position ultimately gives way to a cognitive one: "what begins as an ethic of choice and consent ends, however unwittingly, as an ethic of insight and self-understanding"; "the language of choosing and willing is displaced by the language of seeing and perceiving". Just as it is difficult to see how there could be distinct parties to the contract since all occupy the same position and all reason identically, so it is equally difficult to understand how the act of choice adds anything to what is rationally apprehended in the original position. Rawls's Archimedean point is arrived at by discovery, not decision.

Sandel's account of friendship and self-knowledge in the concluding section of the book is luminous. The entire Rawlsian project depends on defining the integrity of the self apart from supposedly contingent attachments and commitments. But the very character of an ethical person is shaped precisely by such attachments and commitments, and his ethical reflection, if it is to have any depth, must proceed within a history, identity.

## Living without rulers

*Community, Anarchy and Liberty*  
by Michael Taylor  
Cambridge University Press, £14.00 and £4.95  
ISBN 0 521 24621 0 and 27014 6

"Anarchy", in common parlance, denotes the absence of social order and suggests, by way of overtone, the various ills that would befall anyone unfortunate enough to encounter such a state of affairs. For Michael Taylor, in contrast, it signifies not the lack of order but a form of political organization characterized by the absence of concentrated, specialized rulership rather than of rules. In this usage Taylor has etymology on his side but the weight of linguistic history against him.

And not the history of language alone, for at the level of social and political experience which the language of politics articulates, coldly and with passion, the death of effective rule has all too often meant the death of many of those instinctually deprived beings, ourselves, who must live by rules if we are to live at all. Even the tradition of liberalism, marked as it is by the absence of reverence for institutions, reserves an essential place for the minimal, watchman state in the economy of human life.

It says a great deal for the care and skill of Taylor's argument that even a sceptical reader, immune to the emotional appeal which anarchist hostility to the idea of the state exerts on some, will find himself challenged by this book. Taylor's aim is to discover whether and under what conditions social order "in the basic sense of security of persons and their property" (however much or little property there is) can be maintained without the concentration of force and specialization of political functions entailed in the institution of the state. In the limiting case of "pure anarchy" there is no force concentration and no political specialization. However a society can be said to exist in a condition of anarchy, or statelessness, where there is only a limited degree of force concentration. In this sense not only acephalous hunting bands but many groups possessing chiefs or similar types of leader can be described as anarchies. Further, while "a society without any form of coercion is conceivable", this is not entailed by statelessness, by anarchy defined as a perfect dispersion of force and a lack of political specialization. In those societies . . . which are the closest

to, and self-understanding constituted by them. To extricate oneself from these constitutive attachments or to consider the self as prior to them would remove the very possibility of ethical character or moral identity. This in turn would mean that the pursuit of self-knowledge could never get underway at all, for the latter presupposes a "thickly-constituted self" that guides reflection upon the coherence between the ends that I choose and the person that I am.

The fact that our moral identity is not secured in advance, but develops subject to a process of self-reflection, is very well illustrated by the experience of friendship. It is not the case that our understanding of who we are and what we want is established antecedent to entry into relationships with others. Rather, these constitutive attachments help us to define more adequately our own identity and purposes. Friendship is therefore a matter not only of feeling (liking the person) but also of knowing (understanding oneself better), a way of "mutual insight as well as sentiment". In other words, the experience of friendship refutes "the ultimate privacy of self-knowledge". It follows from this that "we are neither as transparent to ourselves nor as opaque to others as Rawls's moral epistemology requires".

Ronald Beiner

*Dr Beiner is lecturer in politics at the University of Southampton.*

## Overseas continued

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Wordsworth's *Borderers* is a masterpiece of the English Romantic movement, too long neglected.

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# BOOKS

## Are there any laws of physics?

The Accidental Universe  
by P. C. W. Davies  
Cambridge University Press,  
£10.00 and £4.95  
ISBN 0 521 24212 6 and 28692 1

There has grown up, among many educated people, the view that everything in Nature, every fabric of its laws, is determined by the local environment in which it was nurtured - that natural selection and the Darwinian revolution have advanced to the boundaries of every scientific discipline. Yet, in reality, this is far from the truth.

Twentieth-century physicists have discovered that there exist invariant properties of the natural world and elementary components which render quite inevitable the gross size and structure of almost all its composite objects. The magnitude of bodies like stars, planets, and even people, are neither random nor the result of any progressive selection process but simply manifestations of the different strengths of the various forces of Nature. They are examples of possible equilibrium states between competing forces of attraction and repulsion.

A study of how these equilibrium states are set up and how their form is determined, reveals that the structure of the admissible stable states is determined, aside from geometrical factors like two pi, by those parameters we have come to call the fundamental constants of Nature; for example, quantities like the electric charge of the electron, the ratio of the electron and proton masses, the strength of the strong force between nucleons, and so forth.

Suppose we were to commission a survey of all the different types of objects in the Universe from the scale of elementary particles to the largest clusters of galaxies. A picture could be prepared which plotted all the objects according to their mass and their size, or average dimension. A priori we might have expected our graph to be covered by points in a fairly haphazard fashion but this is clearly not the case. Some regions of the diagram are heavily and systematically populated, whereas others remain very obviously empty.

Our likely reaction would probably be one of the following three: we could suspect that the points were distributed completely at random - any preference for a particular region of the diagram being purely statistical; all the correlations are real coincidences. Or perhaps we are the victims of a powerful selection effect? Some structures may be unseeable by observers and their existence might explain any areas of significant depletion in the diagram. Finally, we could try and explain the picture by appeal to stability criteria. The "rules" of Nature allow only certain types of structure to exist for long periods of time. The populated regions of our diagram are simply those that describe the stable equilibrium states between different natural forces.

This last alternative is the one that successfully and naturally describes the spectrum of objects on view to astronomers. This short book is an expanded version of some earlier review articles and books, well-known

to astronomers, which seek to demonstrate how it is possible to deduce the gross characteristics of cosmic objects by a knowledge of dimensional analysis and elementary physical reasoning. The treatment is specifically geared to British undergraduates in that A level physics is used and, unlike in the research literature, SI units prevail.

The author first supplies some clear and simple accounts of elementary particle theory, quantum mechanics and relativistic cosmology before moving on to evaluate the necessary scales of structure that emerge in equilibrium states between different forces. These applications form the core of the book but here I found the treatment rather disappointing. Although the exposition remains clear, the choice of material has been well made. For instance, although arguments are given to explain the approximate size of asteroids, planets and hydrogen-burning stars there is no discussion of stellar evolution nor a derivation of white dwarf and neutron star sizes. This would have been far more instructive than the more speculative estimates of galactic dimensions which rely on specific assumptions about their mode of formation. It is this part of the discussion that illustrates one side of the book's two-edged title and shows why the gross features of the Universe are not accidental. They might have been predicted by some of sufficient intelligence who knew the laws of physics. There are good reasons why planets and stars and even people come in the proscribed size ranges we see. Why, then, an "accidental" Universe?

The author introduces the reader to a number of cosmic accidents and a reaction to them called the "anthropic principle". The pleasing fact that so many crucial aspects of the Universe are fashioned by (apparently) unchanging properties - the so-called constants of Nature - actually crosses our problem. In many cases it has been found that dimensionless combinations of various completely unrelated constants of Nature give pure numbers that are extraordinarily large. No explanation for these coincidences exists. A classic example is the rough equality between the ratio of the electric to gravitational forces between two protons and the square root of the number of atoms in the observable Universe - both are roughly equal to ten followed by thirty nine noughts!

In the early 1960s Robert Dicke pointed out that these coincidences play an important "humanitarian" role. If they did not exist then neither would we. They codify certain properties of the Universe - like its large size, great age, lack of antimatter, and so forth - which are necessary prerequisites for the evolution and persistence of life as we

know it. Although most physicists implicitly subscribe to the many-worlds interpretation of quantum mechanics whenever they use the theory, this aspect of it seems to play no role in calculating observable aspects of microparticles and, if pressed, they would metaphorically regard it as a sort of excess baggage to be dropped off and picked up again at the door of the laboratory. A more convincing rationale for the ensemble of different possible worlds is necessary if the "accidental" universe is to be a meaningful and testable statement. Perhaps there is one possibility that has been overlooked and which might, subject to the future course of physics, fit the bill?

If this book had been written twenty or even ten years ago, it would have described more "laws" of Nature than today. Human beings

conceive it. Were the values of the natural constants to differ from what we observe, the Universe really would be unimaginably different, for observers like ourselves could not exist. Of all the possible universes that we can conceive of, almost all would be unable to evolve and sustain atomic life. Paradoxically, the uniqueness of our Universe is imposed most forcibly upon us by the fact that we can, in our ignorance, conceive of so many plausible alternatives. The anthropic principle is a label for our recognition of the fact that the Universe allows life to exist because of a series of unexpected coincidences (or "accidents") concerning the magnitudes of its defining constants.

Davies gives a summary of various scientists' interpretations of these "accidents". Some have tried to invert the logical thread and claim that the concurrence of so many independent accidents provides circumstantial evidence for the strange conclusion that observers are in some sense required for the Universe to exist. However, I felt that the author's approach of quoting directly from the writings of the various contributors to this issue was unsuccessful. Several were quoted out of context and the content of their positions diluted to too low a level. The reader who has not met these ideas before needs a more integrated explanation.

The main objection to the anthropic principle is probably the question: Where, or what, are the other defective, life-free worlds that might have been? We can only have grounds for statements of comparative reference regarding the world we see if others really do or could exist. Davies describes some of the available options, notably one which he elsewhere calls the "many-worlds" interpretation of quantum mechanics. This requires, for a self-consistent picture of quantum theory, the existence of an infinity of independent realities, through which we weave a path by the continual process of observation.

Although most physicists implicitly subscribe to the many-worlds interpretation of quantum mechanics whenever they use the theory, this aspect of it seems to play no role in calculating observable aspects of microparticles and, if pressed, they would metaphorically regard it as a sort of excess baggage to be dropped off and picked up again at the door of the laboratory. A more convincing rationale for the ensemble of different possible worlds is necessary if the "accidental" universe is to be a meaningful and testable statement. Perhaps there is one possibility that has been overlooked and which might, subject to the future course of physics, fit the bill?

If this book had been written twenty or even ten years ago, it would have described more "laws" of Nature than today. Human beings

have a habit of perceiving in Nature more laws and symmetries than truly exist there. During the past twenty years we have seen a gradual erosion of supposed "principles" and constants of physics, as Nature has revealed a deep, hidden flexibility of previously unsuspected extent. Many quantities that, traditionally, we believed to be absolutely conserved - parity, charge conjugation, baryon and lepton number - all seem to be violated in elementary particle interactions. The neutrino was always believed to be a massless particle but recent experiments have provided evidence that it does possess a tiny mass. Similarly, the long-held myth that the proton is an absolutely stable particle is being re-written by recent theoretical arguments and experimental evidence for its instability. Particle physicists have now adopted an extremely revolutionary spirit and it is fashionable to question other long-standing conservation laws and assumptions - is charge conserved, is the photon massless, is the electron stable, is Newton's law of gravity exact at low energy, is the neutron neutral, and so on?

This steady trend from more laws of Nature to less provokes us to ask the overwhelming question: "Are there any laws of Nature at all?" If the answer is "No" then the "accidental" Universe is a particularly appropriate description of the cosmos. It also adds a new and appealing twist to the anthropic principle's dilemma of finding the "other worlds".

It is possible that the rules we now perceive governing the behaviour of matter and radiation have a purely random origin, and may be an "illusion", a selection effect of the low energy world we necessarily inhabit. Some preliminary attempts to flesh out this skeletal idea have shown that even if the underlying symmetry principles of Nature are random - a sort of chaotic combination of all possible symmetries - then it is possible that at low energies the appearance of particular invariances is inevitable under certain circumstances. A form of "natural" selection may occur wherein, as the temperature of the entire gamut of "almost symmetries" have a significant impact upon the behaviour of elementary particles, and orderliness arises. Conversely, as the ultimate energy of the Big Bang is approached, this picture would predict chaos. Our low energy world may be necessary for physics as well as physicists.

Let's recall a simpler example of what might be occurring: If you went out into the street and gathered in everyone passing by over a long period of time, you would find that the graph of the frequency of individuals versus height inevitably tended more and more closely to a particular shape. This characteristic "bell" shape is called the "normal"

distribution. It is a statistical phenomenon that is critical and may be vital to the safety of both humans and equipment. The development of programming languages for this area has been going on for the past fifteen years, although machine code is still widely used for reasons of efficiency. Within the United Kingdom we have been fortunate to have two widely used languages, CORAL-66 and RTL-2, both of which have been adopted as national standards. Elsewhere the position is more confused; in the United States, for example, the Department of Defence was using a different language in the mid-1970s.

Steve Young's book is an excellent review of the development of programming languages for this important area. The majority of the book is taken up with a detailed discussion of the general requirements of a language designed for the real-time area. As he suggests, a suitable language will require most of the characteristics of its more conventional predecessors but will require extra facilities for the handling of equipment, for the structuring of large programs, and so on. I found this section of the book most illuminating; for example, Young includes a section on the properties of the arithmetic types including fixed-point, fractions, and so on. If I had a criticism to make of this part of the book it would be that it discusses

or Gaussian distribution by statisticians. It is ubiquitous in Nature. The Gaussian is characteristic of the frequency distribution of all truly random processes regardless of their specific physical origin. As one goes from one random process to another the resulting Gaussians differ only in their width and the point about which they are centred. A universality of this sort might be associated with the laws of physics if they had a random origin.

Suppose that a programme of this sort could be substantiated and provide an explanation of the symmetries of Nature we currently observe; and so, in principle, some of the values of fundamental constants might have a quasi-statistical character. In this case, the anthropic interpretation of Nature might be slightly different. If the laws of Nature are statistical in origin, then again, a real ensemble of different possible universes does exist. Our own Universe is one realization of the ensemble. The question now is, are all the features of our Universe stable or are they special. Seen in this light, these "anarchic" theories are rather attractive to the anthropic interpretation: they allow real, alternative universes as possibilities without incorporating the simultaneous presence of an infinite number of many worlds; they also allow, in principle, a precise mathematical calculation of the probabilities of seeing a particular aspect of the present world and a means of evaluating the statistical significance of any inhabitable universe. In a very general way we can see that the crux of any final analysis of this type, whatever its detailed character, is going to be the temperature of the universe. Only in a relatively cool universe, will reliable, invariant laws of Nature be discernable; similarly, however, only in a cool "accidental" universe can life exist.

Despite some shortcomings, this is a stimulating book, and indeed it may well be by uncovering the shortcomings that the reader will be most stimulated. Students ought to be encouraged to sample the chapters in order of magnitude analysis since they promote a style of thinking essential to the armoury of the theoretical physicist, and one which often comes as a complete, but welcome, surprise to the new graduate student. Last, but by no means least, the reader will develop a healthy respect for coincidence in physics. Many great advances in our understanding of the universe have blossomed from the roots of coincidence; for, as Miss Murell once recommended, "Every coincidence is worth noting; after all, you can always throw it away later if it is only a coincidence".

**John Barrow**

John Barrow is lecturer in astronomy at the University of Sussex.

language requirements in terms of an unnamed language which has all of the desirable properties he demands. One is often led to the conclusion that the language exists (which it presumably does not).

The remainder of the book is a review of the features of RTL-2, Modula (a real-time derivative of Pascal), and Ada. Ada is a new language which has been designed on behalf of the United States government and which will probably become the "standard" language in the real-time area within a few years. Young makes it very clear that his sympathies are with Ada, although he is quite rightly critical of its features in certain areas. This part of the book contains several example programs. My only criticism of this part of the book is that I feel he should have concentrated on Modula 2 (now widely available on micros), as this has removed most of the problems with Modula, and which provides an interesting competitor for Ada.

The book is well written with clearly printed text and many program examples.

**I. C. Wand**

I. C. Wand is senior lecturer in computer science at the University of York.

# BOOKS

## Attachment drive

The Place of Attachment in Human Behaviour  
edited by Colin Murray Parkes and Joan Stevenson-Hinde  
Tavistock, £14.00  
ISBN 0 422 77600 9

I doubt whether the World Health Organization quite realized the consequences of its actions when, in 1948, it asked an ex-army psychiatrist by the name of John Bowlby to write a report on the psychological effects of separating young children from their homes. John Bowlby's report had a volcanic effect in both professional and lay circles - repercussions far beyond the narrow brief he had been given.

Since then his theories and pronouncements have been subjected to the confusing process of quotation and misquotation that seems to attend the work of all such male mentors on womanhood. More than that, of course, these theories have themselves changed - not beyond recognition but from assertions about maternal care into what purports to be a more broadly-based theory of human "attachment" behaviour (developed by Bowlby in the three volumes of *Attachment and Loss* published between 1969 and 1980; a second edition of volume one has recently been published by the Hogarth Press at £15.00).

The present volume is a professional tribute to the work of John Bowlby. It takes the form of a collection of essays by 17 researchers who have, in one way or another, been inspired to investigate one or other aspect of attachment behaviour. The book is divided into four parts: part one deals with what is termed the "normal" development of child-mother attachments, part two with their "abnormal" development, part three with the implications of childhood attachments for attachments in adult life, and part four with the location of certain adult psychiatric disorders in earlier attachments and/or their problems.

The principal message of the book has to be: attachment theory is alive and well. However, the message conveyed by different contributors is, not surprisingly, and most healthily, discordant: it is true that a normal one-year old has one prime attachment figure, or is it true that it is normal for there to be multiple competing attachment figures? What does an individual's attachment behaviour in one relationship say about that individual's other relationships - all or nothing? What is the nature of the connection between attachment and security - profound or tenuous?

Anyone who believes that a resolution in parenting would do well to read the contributions in parts one and two. The focus on the mother is also alive and well, which, on its own, matters not at all, but does matter very much in that it has severely impaired the conceptual development of the field. Thirty years after Bowlby's original monograph, there are still only a handful of studies seriously concerned with adult child relationships other than the central paradigm of the relationship between biological mother and child. It may very well be that this relationship is of great importance, but we cannot really establish this without devoting at least as much research attention to other child-adult relationships.

Peter Murris's chapter in part three on "Attachment and society" stands out as providing a much-needed understanding of why this matter has made such a contribution to this volume, as relatively modest progress. The culture in which we live, being "rationalistic" according to a certain meaning of that term, is embarrassed by anything that reeks of love. When the meaning of love cannot be comprehended, love is idealized, and mothering too; the image of a

mother's love becomes the paradigm of all truly meaningful relationships. Any inquiry into what is called "attachment" cannot therefore avoid being "implicated in these ideological impulses". Indeed, the concept of attachment may, itself, be seen as a rationalization - of the old idea of community, of divided and divisive gender roles, of an economic system based on the exploitation of the majority by a minority.

What this means is that, while the infant's drive towards attachment is innate, the manner in which it happens is learned and variable according to culture and historical epoch. And as the pattern is partly set by the social context, so, of course, the detailed work (such as that on early George Blomfield's designed to elucidate the particular cultural pattern is extremely valuable. Can valid generalizations be made about what by definition constitute the unique elements of every individual's experience? This remains the challenge for all who pursue the concept of attachment behaviour.

**Ann Oakley**

Ann Oakley is a Wellcome Research Fellow at the National Perinatal Epidemiology Unit, Oxford.

## Spoiling for a fight

Aggression and Violence  
edited by Peter Marsh and Ann Campbell  
Blackwell, £16.00  
ISBN 0 631 12742 9

As this book contains 12 chapters which view the subjects of aggression and violence from very diverse perspectives, it is difficult to comment on the book as a whole. The editors do not attempt an overall synthesis, perhaps wisely in the circumstances, and restrict themselves to a few preliminary general comments.

The contents are cross-disciplinary in that there are contributions from anthropology, developmental psychology, sociology, criminology, behavioural endocrinology and social psychology. There are also three chapters by people directly concerned with the practical problems of aggression: a famous ex-prisoner, a New York police officer and the principal of a school containing aggressive adolescent boys. Of these, John McVicar's is the most successful in that it contains an appropriate blend of practical experience and conceptual analysis.

The whole book is concerned with violence in a societal context, and hence represents an attempt to shift the focus of research away from the individual. Many previous books on the psychology of aggression and violence have concentrated on the individual, analysing aggression as a series of specific influences which can be simulated in the laboratory, or implying that the problems of aggression are viewed in terms of biological malfunction or faulty learning. Most chapters in this book represent a radical departure from this tradition. Even the solitary chapter on animal aggression is concerned with how aggression influences bodily state and not with the usual, more reductionist view that hormonal levels determine aggressive behaviour.

Although most authors reject an approach centred on individuals isolated from their social context, they are by no means in agreement or even certain about what to put in place. Peter Marsh faces this problem in his chapter on the theories of violence. He is more concerned with how people talk about it than with the violence itself. He is less sure that people talk about it much more than they do. But the problem still remains that it isn't all talk. So what do we make of accounts of violence as research data? Although Marsh suggests no satisfactory answer to the question of how to obtain accurate accounts of violent events, he does

fully recognize the difficulties, and in doing so takes a side-swipe (to use the rhetorics of violence) at William Belson's over-publicized work on media violence which naively accepted accounts of violence as research data.

Three chapters contain research reports on children's beliefs about aggression, on adolescent girls' aggression, and on hormones and aggression in monkeys. These serve to provide the book with some variety, as most of the other chapters are more general and theoretical in nature. Graham Murdoch, for example, discusses the book with some variety, as most of the other chapters are more general and theoretical in nature. Graham Murdoch, for example, discusses the book with some variety, as most of the other chapters are more general and theoretical in nature.

Two chapters swim against the wider societal perspective of the book. One, by Len Berkowitz, is a misguided attempt to criticize analyses of the social rules of violence, and to reinstate an individual psychological perspective. The other is by Robin Fox, an anthropologist who demonstrates the pitfalls of interdisciplinary dabbling by using a conceptual framework derived from early ethological studies. During the past 15 years, developments in ethological research on aggression have been prolific, but news of such developments apparently travels slowly. Nowadays there is general recognition of the biological absurdity of Konrad Lorenz's view that animals have to rouse themselves periodically and go looking for a fight.

Altogether I found this odd assortment of chapters a stimulating and thought-provoking mixture.

**John Archer**

John Archer is senior lecturer in psychology at Preston Polytechnic.

## Archetypal endowment

Archetype: a natural history  
of the self  
by Anthony Stevens  
Routledge & Kegan Paul, £12.50  
ISBN 0 7100 0980 1

This is a brave attempt to reinterpret Jung's comprehensive theories of human psychology in the light of recent research in the field of animal behaviour (ethology) and attachment and neurophysiology. Written in elegant and at times poetic prose, and with characteristic Jungian exaltation, it is a very unusual book.

Anthony Stevens has cast his net widely to include the whole of human spiritual, moral, social and psychological activity and experience. Inevitably, he has relied heavily on other writers, particularly Jung and Bowlby, whose work is well summarized in these pages. His integration of the work of these two remarkable men, which occupies much of the first third of the book, is ingenious and on the whole successful.

Central to Jung's psychological theory are the archetypes, "active living dispositions" which "transcend culture, race and time". Although embodied as symbols ("the Great Mother", "the Father-Warrior", and so on) Jung's archetypes are not intended to denote inherited ideas or much as inherited modes of functioning. Stevens argues that archetypes are "biological entities which have evolved through natural selection; they are ancient genetically determined releasers and inhibitors of behaviour". This view of archetypes makes them directly comparable to the "innate releasing mechanisms" which ethologists envisage as the triggers for "goal-corrected behavioural systems".

For readers unfamiliar with Jung and Bowlby, Stevens provides an extended glossary of technical terms. Nevertheless, if they do not take much knowledge of psychology to understand the extraordinary significance of Jung's idea that "The form of the

world into which [man] is born is already born in him as a virtual image. Similarly, parents, wife, children, birth and death are imborn as virtual images, as psychic aptitudes. They are "... lacking in solid content, hence unconscious. They only acquire solidity, influence and eventual consciousness in encounter with empirical facts. The archetypal endowment", says Stevens, includes "being mothered, exploring the environment, playing in the peer group, adolescence, being initiated, establishing a place in the social hierarchy, courting, marrying, child rearing, hunting, gathering, fighting, participating in religious rituals, assuming the social responsibilities of advanced maturity, and preparation for death".

It is at this point that the critical reader becomes worried. Is Stevens really suggesting that there are innate predispositions towards religious belief and initiation rites? Are not these tendencies determined by culture rather than by innate predispositions (or "instinct") to use that obsolescent term? Stevens' answer is "both", and he quotes evidence from a wide variety of ethological and anthropological studies in support of his views. But it is the last of his "archetypal endowments" which will arouse the strongest controversy, for how can natural selection have produced a predisposition to prepare for death? Surely, it is only those predispositions that lead to the perpetuation of the "selfish gene" that tend to persist, and it is hard to see how "preparation for death" can confer any biological advantage.

On the other hand, his arguments for detecting innate components in attachment, play, aggressive behaviour and sexual behaviour are strong and may account for the powerful symbols to which they give rise and which appear in the dreams and myths of all nations.

Foremost among the archetypes is "Mother", and Stevens, in common with most other psychologists, sees the person who first provides consistent and appropriate mothering as conferring upon "the child the priceless experience of living in a predictable, reliable world." Insofar as the real mother conforms to the inborn archetypal image, the relationship will develop in a healthy way, but any disjunction between the actual mother and the "archetypal intentions encoded in the genes" leads to trouble. Just as the cuckoo is programmed to seek for and mate with another cuckoo, despite the fact that it may have been brought up as a blackbird, so the child whose need for mothering has never been adequately met may continue, throughout life, to seek for an object which he or she has never encountered, an ideal parent.

In the middle section of his book Stevens describes how other archetypes develop. He puts forward a plausible explanation for the child's developing view of its own self and includes a touching account of his discovery in childhood of the realms of his own body. Here Stevens does not hesitate to draw far-reaching and controversial conclusions about militant feminism ("a preposterous violation of archetypal intent"), the anti-authoritarian Zeigist of many young people today (a rejection of the archetypal Masculine), the "matrist" society ("When they grow up father-absent children modify society in the direction of matrism because the putative attributes of the father archetype remain unactivated in their psyches") and the high prevalence of homosexuality (attributed partly to the abandonment of "initiation rituals" by which "... father-warriors [are] made ready to meet their biological destiny in procreation and defence if the population is to survive").

For the reader who is capable of retaining his critical faculties in the face of threats of Nemesis, there is much to be considered in this fascinating volume. I, for one, am happy to allow this Jungian thinker to have his intellectual cake and eat it.

**C. M. Parkes**

C. M. Parkes is in the Academic Unit of Psychiatry at the London Hospital Medical College.



John Bowlby

There is plenty of room for argument and few readers will find themselves agreeing with every one of Stevens' pronouncements. But it was in the final section of the book that I found myself totally unconvinced. Here Stevens draws out from the tenuous and confusing findings of neurophysiological research an elaborate theory of psycho-anatomy. Thus, he associates extraversion with the left hemisphere and introversion with the right, while assigning archetypes to the limbic system and brain stem. Modern music and art are seen as dominated by mathematics and therefore functions of the left hemisphere of the brain, as is the "tyrannical intellect" which has given rise to the threat of nuclear destruction. The aim of psychotherapy, says Stevens, is "to reduce the left hemisphere's inhibition of the right and promote communication across the corpus callosum".

This kind of wild speculation on the basis of very inadequate evidence, reduces the credibility of much else that precedes it. One is reminded of earlier attempts to determine the anatomical location of the soul (one anatomist placed it in the pituitary gland). And, of course, Stevens is not afraid to tackle the spiritual dimension.

Perhaps the most elusive concept with which Stevens deals is "self-actualization" or "individuation". This is "a conscious attempt to bring the universal programme of human existence to its fullest possible expression in the life of the individual", and it clearly has moral and mystical connotations. It seems a far cry from the "archetypal intentions encoded in the genes" which are presumably only concerned with the perpetuation of the gene by natural selection. Somewhere something is missing, and it does not help very much to invent a "transcendent function" which enables the suffering induced by allowing good and evil to emerge into full consciousness, to be transcended.

It is both the strength and the weakness of Jungian psychology that it rejects purely intellectual solutions to emotional and spiritual problems. Thus, to develop one's personality, says Stevens, one must learn "the art of letting things happen" despite the "cramps of consciousness" which prevent us. If that is the case, one wonders why he had to write the book at all.

For the reader who is capable of retaining his critical faculties in the face of threats of Nemesis, there is much to be considered in this fascinating volume. I, for one, am happy to allow this Jungian thinker to have his intellectual cake and eat it.

**C. M. Parkes**

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## IMPACT OF COPYRIGHT INFRINGEMENT AND PHOTOCOPYING ON PUBLISHING PROFITABILITY

by Eugene Gros  
Extensive factual information on studies in Europe and USA, with opinions of leading librarians and publishers from Britain, France and USA, and excerpts from European and American copyright laws. This very detailed report is of vital interest to publishers, the legal profession, librarians in non-profit and commercial organisations. A "must" if you want to judge the Commercial (Green) Paper on Copyright Reform.

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## Language design

Real Time Languages: design and development  
by S. J. Young  
Ellis Horwood, Wiley, £29.50 and £12.50  
ISBN 0 85312 251 2 and 460 4

Programming languages have been a lively issue ever since the development of the first computers in the late 1940s. As soon as these computers were used it was realized that programming in machine code (or assembly code) was both hard work and error-prone. Furthermore, it meant that programming could only be done by the specialist. This only discovery gave rise to the development of program parts that could be used in many programs and so-called high-level programming languages. These are languages in which a pseudo-mathematical notation is used and which are independent of the computer on which the program is being run. Such languages are intended to make computers usable by the non-specialist programmer.

The 1950s saw the development of most of the ideas in programming

language design that are still with us today. FORTRAN and Algol were designed and put into use; the former is still widely used. The 1960s saw the development of languages for commercial computing such as COBOL, together with many languages for specialist applications, such as text processing. The end of the 1960s was dominated by a desire to find a single programming language that could be used for all or most programming activities.

The past decade has been a period of concentrated research into the mathematical basis of programming and of the language mechanisms best suited to support these ideas. The major result has been to simplify programming languages giving up any idea of finding a universal language. The in-phrases is "sparse or so". The argument goes, the more likely the programmer is to understand the language he is using, the more likely the compiler software is to be correct, and the more likely the resulting program is to be correct.

Real-time computing is concerned with the programming of computer systems in which the computer is connected to equipment, such as the controls in an aircraft or a robot on a factory production line, which must respond within a certain time interval. In certain applications this re-

sponse time is critical and may be vital to the safety of both humans and equipment. The development of programming languages for this area has been going on for the past fifteen years, although machine code is still widely used for reasons of efficiency. Within the United Kingdom we have been fortunate to have two widely used languages, CORAL-66 and RTL-2, both of which have been adopted as national standards. Elsewhere the position is more confused; in the United States, for example, the Department of Defence was using a different language in the mid-1970s.

Steve Young's book is an excellent review of the development of programming languages for this important area. The majority of the book is taken up with a detailed discussion of the general requirements of a language designed for the real-time area. As he suggests, a suitable language will require most of the characteristics of its more conventional predecessors but will require extra facilities for the handling of equipment, for the structuring of large programs, and so on. I found this section of the book most illuminating; for example, Young includes a section on the properties of the arithmetic types including fixed-point, fractions, and so on. If I had a criticism to make of this part of the book it would be that it discusses

**John Barrow**

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language requirements in terms of an unnamed language which has all of the desirable properties he demands. One is often led to the conclusion that the language exists (which it presumably does not).

The remainder of the book is a review of the features of RTL-2, Modula (a real-time derivative of Pascal), and Ada. Ada is a new language which has been designed on behalf of the United States government and which will probably become the "standard" language in the real-time area within a few years. Young makes it very clear that his sympathies are with Ada, although he is quite rightly critical of its features in certain areas. This part of the book contains several example programs. My only criticism of this part of the book is that I feel he should have concentrated on Modula 2 (now widely available on micros), as this has removed most of the problems with Modula, and which provides an interesting competitor for Ada.

The book is well written with clearly printed text and many program examples.

**I. C. Wand**

I. C. Wand is senior lecturer in computer science at the University of York.



## BOOKS

### Ecology of culture

Archaeology as Human Ecology: method and theory for a contextual approach

by Karl W. Butzer  
Cambridge University Press.  
£22.50 and £7.50  
ISBN 0 521 24652 0 and 28877 0

Karl Butzer sets out to demonstrate that past human ecology, the study of which is archaeology, is as amenable to objective analysis and predictive modelling as is the ecology of any other species.

The author tackles this task from a geologist's viewpoint (though admitting that a biological viewpoint would do just as well) and then proceeds to present the broad sweep of archaeology, including such topics as site formation and cultural adaptation and change, in a new and thoroughly stimulating way. Some recent re-appraisals of archaeological theory (the "new archaeology") have simply involved the expression of old ideas in new terminology. Butzer expresses his original approach to the subject in the language of ecology and other natural sciences.

The first part of the book deals in perspectives, introducing the concept of ecology, and of context in the sense of a point in space and time to which a single relic or a whole landscape of sites belongs and in relation to which all studies of such antiquities must be viewed. Butzer wishes us to see an archaeological site in its setting of time and cultural level, and of the geomorphological and biological processes going on within and around it.

Chapters three to eight introduce and describe geo-archaeology in an accessible but diligent manner, encompassing the analysis of landscapes, micro-environments and stratigraphy. They clearly illustrate the importance of the mineral sediment in which archaeological finds are buried in any understanding of site formation, modification or destruction, together with the more familiar theme of man's impact on the landscape.

Subsequent chapters outline archaeometry, with a good summary of dating techniques, archaeobotany, and zoo-archaeology. This latter chapter is a little disappointing, the author failing to give full credit to the value of studies on invertebrate groups.

The remaining five chapters deal in theory and models, and it is here that much of the book's value lies. Butzer succeeds in accommodating human behaviour and culture within his concept of ecosystem, and the interplay between internal and external influences in cultural change is always prominent. Chapter 13 is particularly important in pointing up the unpredictability of human behaviour, emphasizing the difference between the actual and the perceived environment.

It is reassuring to find such clear perception of the vagaries of human behaviour in a book which sets out with the intention of studying man through the techniques of an objective science. Equally gratifying in the discussion of Pleistocene hominization and Holocene cultural adaptation is the presentation of a mechanism whereby evolution and external environmental stimuli respectively provide the motivation and directional control for cultural and biological change.

Overall, the book is attractive and well-illustrated, and there is some very imaginative use of figures and tables. Most impressive is the list of references, which runs to nearly 37 pages - some 10 per cent of the volume. Butzer copiously illustrates his concepts and models with helpful and relevant examples drawn from all over the world, albeit mainly from the prehistoric period. At first glance, there is little here for the urban archaeologist, but with a little thought and imagination, this contextual approach could be applied to urban studies, where the statement "people are geomorphic agents" is

particularly true. Archaeology as Human Ecology deserves to find a place on the bookshelves of archaeologists of all persuasions. It is not easy reading. The prose is uncompromising, and uses the full range of the ecologists' and geo-archaeologists' vocabularies. This does not render it inaccessible, and even though a full understanding of some sections of the book may require long acquaintance and deep concentration, the effort will be repaid: there are few other textbooks on archaeological theory of which this could be said.

T. P. O'Connor

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## Mayan remains

Ancient Maya Civilization by Norman Hammond  
Cambridge University Press.  
£22.50 and £7.95

ISBN 0 521 24017 4 and 28399 X  
Ancient Mesamerica: a comparison of change in three regions by R. E. Blanton, S. A. Kowalewski, Gary Feinman and Jill Appel  
Cambridge University Press.  
£17.50 and £5.95

ISBN 0 521 22858 1 and 29682 X  
A major point of this straightforward book, in which Professor Hammond aims "to survey what is currently known about the civilization of the Ancient Maya of southern Mexico and Central America for a non-academic audience", is that older interpretations of Ancient Maya society are now plainly inadequate. These views, developed during the 1930s, 1940s, and 1950s, emphasized theocratic polity, swidden maize agriculture, sparsely inhabited ceremonial centres, and an elite consumed by an all-pervasive concern with time and its demarcation. Newer studies demonstrate that for the Classic period we are dealing with an internally specialized society, founded on intensive, diversified agriculture and complex exchange networks, organized into hierarchical regional and supra-regional polities.

Hammond clearly highlights the key research which has contributed to the improved understanding we now have. He emphasizes the proven importance of systematic regional studies for discerning patterned spatial variability in population, architecture, and land use. He discusses at some length the exciting recent advances in decoding the Maya "script" carved on stone monuments and painted on ceramic vessels. It is now known that much of this symbolism commemorates the activities of elite personages, and these activities provide very important information on socio-political relationships between different centres and between centres and their dependents in local regions.

Hammond's main focus is on the lowland component of ancient Maya cultural development. Major emphasis is upon the southern sub-region; the Peten of northern Guatemala, and its immediate environs, especially Belize - the heartland of the Classic florescence between AD 250 and AD 900. The highlands in Guatemala and Chiapas to the south, and the northern lowlands of Campeche, Quintana Roo, and Yucatan are only briefly discussed.

The book is organized into eleven chapters. The first three discuss the history of archaeological exploration in the Maya area, and note the highlights of natural environment and contemporary Maya culture. The two central expeditions of John L. Stephens and Frederick Catherwood (in 1839-40 and 1841-42) receive the most attention. Nevertheless, the contributions of eighteenth and early nineteenth century "precursors" and later nineteenth and twentieth century "successors" are also noted.

Chapter four provides a general review of Mayan cultural history, from the shadowy and poorly known hunters and gatherers of the preceramic Archaic, through the beginnings of sedentary agricultural adaptation



Terracotta head found by Frobenius in 1910 in the Olukun Grave, Ife, Nigeria. It appears to come from a figure, and has not only an unusual hairstyle but also raised dots resembling keloid scarifications along the eyebrows, a feature not found on other Ife heads. Illustration taken from *The Atlas of Archaeology*, edited by K. Brumfiel and published by Macdonald at £15.95.

by ceramic-using people in the third millennium BC, through the development of increasingly complex organization during the long Preclassic era, and into the great florescence of the first millennium AD (the Classic period). This outline sets the stage for the subsequent seven inter-related topical chapters, each of which concentrates on a single major theme: Subsistence and settlement. The structure of society, politics and kingship. Trade and external contacts. Architecture and art. Men and gods. And the Maya mind. The main concern is with the Classic period (AD 250-900), and the basic orientation is a synchronic one.

As thorough and all-encompassing as this work generally is, however, there are still a few surprising omissions. For example, there is no reference to the important palaeo-ecological investigations and regional studies focused on the northern Peten, just west of Belize. Missing too is any discussion of the important work on prehistoric exchange based on ceramic studies in northern Belize.

On the other hand, there is an extremely useful long bibliographic essay which will provide the interested reader with the means to pursue additional study on his own. The strength of this work, however, is not in the realm of interpretation. Hammond aims at broad synthesis, and he generally achieves it quite well. The reader is left largely with his own devices regarding the cultural development. However, this book, with its wealth of well organized information and the leads it provides to more specialized sources, should readily provide an excellent starting point for thinking about why Classic Maya civilization, based in the southern lowlands, developed, flourished, and collapsed as it did.

*Ancient Mesamerica*, by Blanton, Kowalewski, Feinman, and Appel differs in two basic ways from Hammond's *Ancient Maya Civilization*. First, it has a general Mesamerican focus, and thus aims at a much larger area. Second, and most importantly, it is an interpretive study, which attempts to explain ancient Mesamerican cultural development and its variability over time and space.

The authors' basic interest is cultural evolution, and their greatest concern is with operationalizing theoretical concepts so that material remains can be used effectively to derive information about evolutionary change. The general strategy is to examine three key regions for which there is good regional information: the Valley of Oaxaca, the Valley of Mexico, and the eastern (Maya) lowlands. In considering each region the authors look for key archaeological elements which they consider to be manifestations of these dimensions of societal organization which are "core features" of cultural evolution: scale (population size and areal extent of a cultural system), complexity (functional diversity in the component parts of the system), and integration (linkage of component parts). Their task is to describe these core features and explain change over space and time (from about 1500 BC until European contact in the early sixteenth century AD). A major focus is on the role of market economy and the evolutionary relationships between the organization of exchange and political authority.

This is an innovative and provocative book which will almost certainly have significant impact well beyond the confines of Mesamerican prehistory. Its main contribution is the development of important new hypotheses which can be used by archaeologists to structure new fieldwork and analysis aimed at explaining cultural evolution in ancient Mesamerica. Many will disagree with the authors' interpretations, and they can be faulted for failing to address the causes of some important changes (for example, the collapse of Classic-period states focused on large centres, such as Teotihuacan, Monte Alban, and Tikal).

However, at the present state of knowledge and understanding, their views are at least as good as anyone else's. Most importantly, they have clearly pointed out some of the most productive research pathways that archaeologists interested in cultural evolution should follow if they are to come up with more definitive answers in the future.

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## Unique biomass

Ecology of Woodland Processes by John R. Packham and David J. L. Harding  
Edward Arnold, 18.95  
ISBN 0 7131 2341 2

Ecological processes are probably more complex in woodlands than any other type of ecosystem. Hence Packham and Harding have faced quite a difficult task in writing this textbook. It introduces the reader to nearly every one of the topics that would be included in an average undergraduate introduction to general ecology, although many topics are inevitably treated only superficially.

The first chapter sets the scene by introducing the concepts of woodland structure, nutrient cycling, energy flow and trophic levels. Plant parasitic fungi are strangely included among herbivores but otherwise it is a sound beginning. In this chapter and throughout the book key words are highlighted in a bold typeface on first introduction. These are an excellent adjunct to the index as a means of finding one's way around a book packed full of a great variety of information.

Chapter two covers the basic biology of woodland plants, photosynthesis and primary production and physiological adaptations to shade. Evidently born between the need to introduce general ecological concepts and the space that has to be devoted to discussing woodlands in their own right, the authors consign the topics of light measurement and plant growth analysis to a couple of tables.

The basically physiological approach to plant ecology taken in chapter two is also used in the next chapters on soils, climate and zonation. The usual competition appears here in a sub-heading but there is no real discussion of it as a process influencing distribution in either animals or plants. With the notable exception of the chapter on succession, population processes (such as self-thinning and life tables) in woodland plants are ignored.

Reproductive strategies of woodland plants are covered in a separate chapter, which brings the integration of plants and animals of woodlands to the fore. Animals are mentioned as seed dispersers, seed consumers and as pollinators. In the discussion of pollination mechanisms it is said that self-sterility helps to "ensure" the production of new genotypes which is "important if the population is to remain capable of making major adaptations to changing conditions". This unfortunate wording is open to misinterpretation by the student who has not fully grasped the difference between individual and group selection, particularly as natural selection is not dealt with.

The chapter on succession gives the reader a good feel for the continuing changes which occur in forests. This chapter also contains a brief quaternary history of woodland vegetation in Britain. Although the whole book is "set" in the British Isles, this chapter and others make frequent reference to woodlands in continental Europe, North America and the tropics, and the balance seems about right for a British audience at the introductory level.

Woodland herbivores, mostly insects, and forest pathogens are discussed in chapter six which also has an instructive section on Dutch elm disease. Animals make a full appearance in the next chapter where we go straight into key factor analysis and population regulation of the winter moth. The population dynamics of the pine looper and spruce budworm are also discussed very briefly, followed by the great tit and tawny owl.

For a book which tears breathlessly through so many topics, some might consider the 31 pages devoted to decomposition in chapters eight and nine overdoing it. But, at last we discover what is really unique about woodland ecosystems: most of the standing crop biomass is dead.

Jonathan Silvertown  
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## Recent publications

*Careers 81* published in both national and London/South-East editions. It is a comprehensive guide for jobseekers to recruitment, training schemes and qualifications. Written in three clear and precise sections with an invaluable reference guide, the book is of genuine use and interest to 16-plus school and college leavers. Distributed free to school, sixth form colleges and careers offices, *Careers 81* can be purchased at £2.95 (49.50 paperback) from local bookshops. (Career 81, VNU Business Publications, ISBN 0 86271 000 X)

Seminar papers delivered during the 1982 meeting of the Association of Commonwealth Universities Council have been published in pamphlet form as *Universities facing the challenge of the eighties: can they survive in their present form?* Further information and copies can be obtained from The Association of Commonwealth Universities, John Foster House, 36 Gordon Square, London WC1H 0PF.

The text of N. B. Harte's commemorative lecture, "One Hundred Years of History Teaching at University College London", has been published in pamphlet form. Dr Harte, senior lecturer in economic history at UCL, gave the lecture on October 30, 1980 with the provost of UCL, Sir James Lighthill, in the chair. Copies may be obtained from the press office, University College London, Gower Street, London WC1, at 50p each.

The Association of Commonwealth Universities' *Scholarships Guide for Commonwealth Postgraduate Students* is an index to grants, loans, scholarships, assistantships, etc. open to graduates of Commonwealth universities who wish to undertake postgraduate study at research at a Commonwealth university in their own country. It is available from the ACU, John Foster House, 36 Gordon Square, London WC1H 0PF at £7.50.

A new journal concerned with all aspects of teaching and learning in a multicultural society has been launched by Trentham Books, under the editorship of Gillian Klein of the ULEA library service. *Multicultural Teaching* will consist of case studies of professional practice, discussion of its aims and purposes and examples of new books and resources and information about courses, conferences and events of professional interest to professional readers. Correspondence concerning subscriptions should be sent to Mrs B. Wiggins Trentham Books, 30 Wenger Crescent, Trentham, Stoke on Trent ST4 8LE, suggestions for articles and MSS should be sent to the Editor, care of the department of education, University of Keele, Keele, Staffs ST5 5BG.

*The Language Monitor* by Harold Rosen, is a critique of the Assessment of Performance Unit's Primary Survey report "Language Performance in Schools" (1979). The book is published by TINGA TINGA, a branch of Heinemann Educational Books. £1.95. ISBN 08473 134 2.

*Schools and Industry*, by Ian Jamieson and Martin Lightfoot, is based on the work of the Schools Council Industry Project, a large national curriculum development project designed to promote teaching about industry and industrial society. Particular research is paid to the role of the CBI and the TUC, the two partners of the Schools Council in pioneering the project. (Schools Council Working Paper 73, published by Methuen Educational). £6.95. ISBN 0423 31070 5.

## Forthcoming Events

A conference entitled "School to Work - The New FE II" will be held at Coombe Lodge, Blandford, Dorset on Monday January 17 and Friday January 21. The conference will focus on the local authority and the planning and implementation of provision for the "new FE II". Its membership will be drawn from local authority officers, but there will be representatives of the colleges and some of the major agencies. There will be discussion of staff, and liaison of officers of all the relevant bodies, including college-LEA relationships.

The Rev John Polkinghorne, formerly of Trinity College, Cambridge, will deliver two lectures at the Queen's University Belfast, entitled "A Scientist's Approach to Faith". The lectures will be held in the English Lecture Theatre, Main Building on Monday 17 and Tuesday January 18 1983 at 8.00 pm. Admission free.

## Open University programmes

### January 15 to January 21

#### Saturday January 15

9.00-9.30 Technology Foundation Course: *Does It Make You Make It?* (T101, prog 3)  
10.30-11.00 Countdown to the QJ-2 (prog 2)  
11.00 Science Foundation Course: *Preparatory Maths - Algebra* (S101, prog MAP52)

#### Sunday January 16

9.00-9.30 Energy in the Home: *That's the Way the Money Goes* (FSTV32, prog 1)  
10.30-11.00 Consumer Decision: *Semi-Detached* (P931, prog 1)

## Grants

**Bradford**  
Physicist: Dr H. S. Rechal and Dr C. B. Thomas, £24,950 from the British Technology Group for research into electroluminescent materials.  
Mechanical and manufacturing systems engineering: Dr P. D. Coats, £15,570 from the Polymer Engineering Directorate of the SERC for research into thermoset injection moulding.  
Archaeological sciences: Dr J. Hunter, £25,000 from the Scottish Department to carry out archaeological investigations in the Bay of Poul, Sanday, Orkney.

**Exeter**  
Medicine: £31,300 from the Medical Research Council for research into the association of immunoglobulin genes with the auto-antibody response in rheumatoid arthritis under the direction of Dr V. E. Derynhouse, Dr R. K. Jacoby and Dr G. H. Hall.

## Glaxo

Zoology: Dr R. W. Furness, £25,682 from the Natural Environment Research Council, to investigate the feeding of seabirds in relation to commercial fisheries.  
Natural Philosophy: Professor R. G. Moorhouse, £53,350 from the SERC for research into fundamental particle system dynamics.  
Pathology: Professor R. N. M. MacSweeney, £10,000 from the Brewers' Society to study immune mechanisms in alcohol liver disease.  
Chemistry: Dr A. R. B. Baker, £14,278 from the SERC for research into stopped-flow systems for reactions of biochemical interest.

**St Andrews**  
Applied mathematics: Dr A. D. D. Craik, £28,000 from the SERC for research into wave-interaction in fluid flows.  
Physics: Professor R. A. Studding, £57,371 from the SERC for research into far infra-red spectroscopy of semiconductors.  
Zoology: Dr J. Somerville, £60,733 from the SERC for research into the influence of RNA-binding proteins.  
Biochemistry: Dr G. A. J. Goodlad, £24,853 from the Medical Research Council for an investigation of the mechanism for the regulation of actin polymerization.  
Chemistry: Dr A. R. Baker, £14,278 from the SERC for research into stopped-flow systems for reactions of biochemical interest.

## University College of Wales, Aberystwyth

Applied mathematics: Professor K. Walters, £57,374 from the SERC for a study entitled "Non-linear computer simulation of a Rheometer" and a Lubricated Die Rheometer; £18,800 from the SERC for a study entitled "Non-Newtonian Fluid Mechanics" under the direction of Professor K. Walters and Dr A. R. Baker.  
Business Administration: Dr P. W. H. Davies, £13,455 from the European Commission for an evaluation of the methods of assessing the environmental impact of EEC policies in Wales.  
Chemistry: Dr J. O. Williams, £11,000 from the Procurement Executive, Ministry of Defence for a study of fast optical switching using organic dyes.  
Physics: Dr E. R. Williams, £21,266 from the SERC for a study of microprocessor controlled multiple frequency absorption and virtual height measurements of the ionosphere.  
Dr D. H. Trevena, £17,159 from the Procurement Executive, Ministry of Defence for a study of cavitation on safety locks.  
Pure Mathematics: Dr N. G. Lloyd, £10,000 from the SERC for a symposium on differential equations.

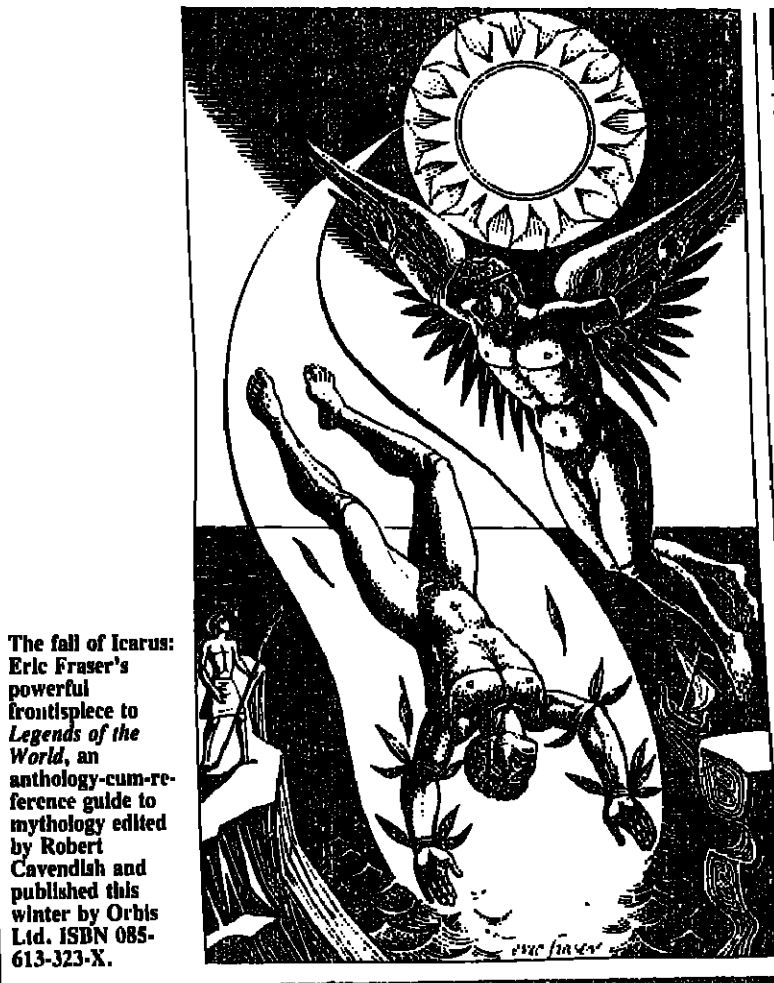
## University College of North Wales, Bangor

Mathematics and Computer Science: £23,244 from the SERC for use of Cray 1 computer for research in plasma physics, under the direction of Dr H. C. Barr, Professor T. J. M. Boyd and Dr G. A. Gardner.  
Computing Laboratory: £150,000 from the UIC for the installation of a new computer system.  
Physical and molecular sciences: Dr A. E. Underhill, £22,100 from the SERC for a study of the parent's function and 3D ordering in 1D metallic complexes, and £20,298 from the SERC for a study of one-dimensional metals based on complexes of copper and ligands.  
History: Professor S. J. Woolf, £20,500 from the SERC for an investigation into the economic and social change in Italy within the Napoleonic Empire, 1800-1814, and £16,000 from the SERC for a study of the impact of a research project on Sheikh Abdullah Alulaiman.

## University of London

11.00 The Pre-School Child: *Give and Take* (P12)  
11.30 The Cuckoo's Nest: *2: Looking into the Mirror: What are the Solutions?*  
Radio 3 (VHF)  
6.55 Technology Foundation Course: *Why Design a Car?* (T101, prog 3)  
7.15 The First Years of Life: *Mummies and Daddies* (FSTV32, prog 1)  
7.20 The First Years of Life: *Mummies and Daddies* (FSTV32, prog 1)  
7.25 The First Years of Life: *Mummies and Daddies* (FSTV32, prog 1)  
7.30 The First Years of Life: *Mummies and Daddies* (FSTV32, prog 1)  
Radio 3 (VHF)  
22.30 Into the Open - *Q: How to Make the Best Use of Pinned Materials* (prog 1)  
• repeated programme

# NOTICE BOARD



The fall of Icarus: Eric Fraser's powerful frontispiece to *Legends of the World*, an anthology-cum-reference guide to mythology edited by Robert Cavendish and published this winter by Orbis Ltd. ISBN 085-613-323-X.

## Honorary degrees

### Aberdeen

L.D. Her Majesty Queen Elizabeth the Queen Mother will have the honorary degree of Doctor of Laws conferred upon her next year.

The following honorary degrees will be conferred at graduation ceremonies in July 1983:

L.D. Mr Richard Baker, OBE, broadcaster and author.

Professor Sir Ian McGregor, tropical medicine expert and former director of the Medical Research Council Laboratories in the Gambia.

Lord Alexander John MacKenzie Stuart, QC, Judge of the Court of Justice, European Communities, Luxembourg, since 1973.

Dr James Mackay Shaw, senior principal scientific officer, Torry Research Station from 1954 to 1974.

Dr John Robert Vane, FRS, group research and development director with the Wellcome Foundation since 1973.

Dr Professor Hans W. Wolf, professor of old testament studies at the University of Heidelberg since 1967 and editor of the Old Testament Commentary series.

BSc: Mr Alexander Barclay, mechanical workshop technician in the department of chemistry since 1978.

Mr Thomas Cook, warden of Tarradale House since 1981 and a member of the university staff since 1937.

**Manchester**  
The court of the University of Manchester has conferred honorary degrees on the following:

L.D. Sir Denis Forman, joint managing director of Granada Television since 1965.

Sir Sidney Hambling, chairman of the North West Regional Health Authority.

Sir William Loris Mather, vice Lieutenant of Cheshire since 1975.

Dr Edward J. Professor Geoffrey Gee, Sir Samuel Hall Professor of Chemistry at Manchester since 1977.

Mr Mr Peter John Cropper, leader of the university from 1960 to 1982.

Mr Harry Kent, deputy bursar (personnel) of the university from 1974 to 1982.

Mr Clive Hubert Lloyd, professional cricketer, captain of Lancashire and the West Indies.

Mr David Geoffrey Watson, regional director, British Technology Group.

## Noticeboard is compiled by Patricia Santinelli and Milla Goldie

## Fellowships

The following have been made fellows of the University College, London: Professor R. J. L. Berry, dean of the school of urban and public affairs, Carnegie Mellon University, Pittsburgh, USA.

Sir Ellis E. I. Clarke, GCMG, President of the Republic of Trinidad and Tobago; his Excellency Judge Tadiou O. Elias, president, International Court of Justice.

Professor Ruth Merlan Hicks, professor of experimental pathology, Middlessex Hospital Medical School.

Dr P. H. Kemp, reader in fluid mechanics, UCL.

R. Oakley, CBE, senior partner, Watson Huxley Consulting Engineers.

Miss Jean F. H. Orr, director, Office of Manpower Economics.

Professor H. P. Rang, FRS, professor of pharmacology and head of department, UCL.

Dr D. S. Ridley, consultant pathologist, hospital for Tropical Diseases.

Mr Euan Uglow, painter, Slade School of Fine Art, UCL.

The following have been made Honorary Fellows:

Sir Hugh Casson, KCVO, president of the Royal Academy.

Dr R. Stewart, CBE, principal, University of London.

## Appointments

**General**  
Sir John Kendrew, president of St John's College, Oxford, and Nobel Prize winner for chemistry in 1962, was elected chairman of the governing council of the United Nations University which concluded its twentieth session at UNU headquarters in Tokyo in December. Sir John was between 1978 and 1982 director general of the European Molecular Biology Laboratory.

Valerie Hider, organizer of Croydon's adult education service for the past four years, has been appointed staff inspector for adult education and the youth service with the Inner London Education Authority.

The centre for information on language teaching and research has appointed Mrs June Gatch, previously research information officer at the centre, to the new post of linguistic minorities information officer.

Mr Roger Dave, the Manpower Services Commission's director of youth training, has been appointed chief executive of the commission's recently formed training division. He succeeds Mr A. W. Brown, who is moving to a post in the Department of Energy.

## Universities

**Newcastle upon Tyne**  
Personal readership in rural resources development in the faculty of agriculture: Mr Martin Whibley.

**Welsh National School of Medicine (Ysgol Ffedydyl Cymru)**  
Readership in endocrinology: Dr B. Rees Smith, senior lecturer in the department of medicine has been promoted to a Readership in endocrine immunology.

At the 73rd session of the council of CERN (the European laboratory for particle physics), Professor Ian Butterworth, currently head of the physics department at Imperial College, London, has been appointed to succeed Dr Erwin Collard as research director.

# Courses

## THE CITY UNIVERSITY BUSINESS SCHOOL

## Evening MBA Programme 1983

"This course has been designed to develop significant innovative decision makers who can take over the responsibilities of managing financial and trading institutions. I believe that this programme is one of the most exciting developments that has taken place in a British University for many years."

The course is divided into two stages. The first stage covers eight management disciplines which lay the foundation for the stage two special areas. Finally, under the supervision of both company senior management and The City University Business School staff, a within-company management consultancy project is undertaken.

The time period for the Degree is 2-4 years and involves two evenings a week.

Applicants must possess either a first or second class honours degree, or an equivalent professional qualification.

The course begins February 1983; for more information please contact:

The City University Business School  
Frobisher Crescent, Barbican, London EC2Y 8HR.  
Telephone: 01-920 0111 Ext. 234





# CLASSIFIED ADVERTISEMENTS

## The Times Higher Education Supplement

To place advertisements write to or telephone:

The Advertisement Manager,  
The Times Higher Education Supplement,  
Priory House, St John's Lane, London EC1M 4BX.  
Tel: 253 3000. Telex 264971

### Rates:

Classified Display - £9.50 psc  
Min. size: 9cm x 1 col @ £85.50  
Classified Linage - £1.85 per line  
Minimum 3 lines @ £5.55  
Box number - £2.00

### Copy deadlines:

Classified Display:  
Friday in the week prior to publication  
Classified Linage:  
Monday 10.00 am in the  
week of publication

### Universities



Applications are invited for the following posts for which applications should be sent to the dates shown. SALARIES (unless otherwise stated) are as follows: Professor £42,577; Professorial Fellow £24,241; Senior Lecturer £20,000-£23,877; Lecturer £16,250-£19,407. Further details and application procedures may be obtained from The Association of Commonwealth Universities (ACU), 28 Dorset Square, London WC1H 0DP unless otherwise stated.

**The University of Adelaide**  
**LECTURER IN APPLIED MATHEMATICS (A1488) (Tenurable)**

Applicants should hold a PhD degree in applied mathematics. Lectures concerning the teaching and research activities and facilities of the department can be obtained from the Chairman of the Department (DR 23 546). It is a University policy to encourage women to apply for consideration for appointment to, in particular, tenurable academic positions. Further information about the general conditions of appointment may be obtained from the Personnel Manager of the University.

Holders of full-time tenured or tenurable appointments have the opportunity to convert their full-time appointment temporarily to a full-time appointment for a specific period of up to one year where this is necessary for the care of children. Applicants, in duplicate, should send their curriculum vitae, including details of academic qualifications and research interests, to the Chair of the Department (DR 23 546). The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Tasmania**  
**CONTRACT LECTURER: DESIGN-IN-WOOD**

Applications are invited for a full-time Lecturer position in the School of Art. The position is a three-year contract basis from 1 March 1983 and will involve approximately 12 contact hours per week. Candidates must be practising professional woodworkers with experience in design and making in the wood products furniture field and should have a teaching experience. The appointee will teach the area of 3-dimensional design within the design and wood section of the Bachelor of Fine Arts course. Teaching involvement and administrative duties in the school will be expected. Commensurate salary will be in the rate of one-half of a point within the Lecturer's range. For information about academic aspects of the post contact the Director of the School of Art, The University of Tasmania, 100 Collins Street, Hobart, Tasmania. Applications should include curriculum vitae, 12-20 slides of recent work in the relevant field, names and addresses of two professional referees who may be contacted. Appointment conditions and information may be obtained from the Staff Officer (Tel: 061 250 2000). Applications close with the Registrar, University of Tasmania, Box 255, Hobart, Tasmania, Australia 7001, on 29 January 1983.

**University of Queensland**  
**SENIOR LECTURER IN ACCOUNTING**

Department of Commerce. Applicants should hold a PhD degree in accounting, appropriate teaching and professional experience, and be capable of encouraging and directing higher degree research in financial accounting. An interest in financial accounting, particularly in the areas of company accounting or financial statement analysis would be advantageous. 12 February 1983.

**SENIOR LECTURER IN FINANCE**

Department of Commerce. Applicants should hold a PhD degree in finance, appropriate teaching and professional experience, and be capable of encouraging and directing higher degree research in finance, and be capable of encouraging and directing higher degree research in finance. 12 February 1983.

**LECTURER IN INTENSIVE ANIMAL PRODUCTION (Tenurable)**

Department of Animal Production. Applicants should have a degree in Veterinary or Agriculture (or equivalent) and a higher degree. Preference may be given to applicants with extensive experience in the poultry and pig industries especially in the disciplines of management and nutrition. 4 February 1983.

**Griffith University Brisbane**  
**SENIOR LECTURER COMPARATIVE STUDIES IN SOCIETY AND HISTORY**

Department of Prehistory. Applicants should hold a PhD degree in a relevant field and have a distinguished record in the field of comparative studies in society and history. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Tasmania**  
**CONTRACT LECTURER: DESIGN-IN-WOOD**

Applications are invited for a full-time Lecturer position in the School of Art. The position is a three-year contract basis from 1 March 1983 and will involve approximately 12 contact hours per week. Candidates must be practising professional woodworkers with experience in design and making in the wood products furniture field and should have a teaching experience. The appointee will teach the area of 3-dimensional design within the design and wood section of the Bachelor of Fine Arts course. Teaching involvement and administrative duties in the school will be expected. Commensurate salary will be in the rate of one-half of a point within the Lecturer's range. For information about academic aspects of the post contact the Director of the School of Art, The University of Tasmania, 100 Collins Street, Hobart, Tasmania. Applications should include curriculum vitae, 12-20 slides of recent work in the relevant field, names and addresses of two professional referees who may be contacted. Appointment conditions and information may be obtained from the Staff Officer (Tel: 061 250 2000). Applications close with the Registrar, University of Tasmania, Box 255, Hobart, Tasmania, Australia 7001, on 29 January 1983.

**The University of Newcastle**  
**LECTURER - DEPARTMENT OF CHEMISTRY**

The successful applicant is required to teach and supervise research in the field of Chemistry. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Sydney**  
**LECTURER / SENIOR LECTURER - DEPARTMENT OF LAW**

There are two positions - one at Senior Lecturer level and one at Lecturer level. Applicants should hold a PhD degree in Law and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of New South Wales, Sydney**  
**LECTURER - DEPARTMENT OF APPLIED MATHEMATICS**

School of Mathematics. Applicants should hold a PhD degree in applied mathematics and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of New South Wales, Sydney**  
**LECTURER - DEPARTMENT OF APPLIED MATHEMATICS**

School of Mathematics. Applicants should hold a PhD degree in applied mathematics and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The Australian National University**  
**PROFESSORIAL FELLOW IN ETHNOBOTANY**

Department of Prehistory. Applicants should hold a PhD degree in a relevant field and have a distinguished record in the field of comparative studies in society and history. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Tasmania**  
**CONTRACT LECTURER: DESIGN-IN-WOOD**

Applications are invited for a full-time Lecturer position in the School of Art. The position is a three-year contract basis from 1 March 1983 and will involve approximately 12 contact hours per week. Candidates must be practising professional woodworkers with experience in design and making in the wood products furniture field and should have a teaching experience. The appointee will teach the area of 3-dimensional design within the design and wood section of the Bachelor of Fine Arts course. Teaching involvement and administrative duties in the school will be expected. Commensurate salary will be in the rate of one-half of a point within the Lecturer's range. For information about academic aspects of the post contact the Director of the School of Art, The University of Tasmania, 100 Collins Street, Hobart, Tasmania. Applications should include curriculum vitae, 12-20 slides of recent work in the relevant field, names and addresses of two professional referees who may be contacted. Appointment conditions and information may be obtained from the Staff Officer (Tel: 061 250 2000). Applications close with the Registrar, University of Tasmania, Box 255, Hobart, Tasmania, Australia 7001, on 29 January 1983.

**The University of Newcastle**  
**LECTURER - DEPARTMENT OF CHEMISTRY**

The successful applicant is required to teach and supervise research in the field of Chemistry. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**University of Western Australia, Perth**  
**CHAIR IN MATHEMATICS (Ref. 2)**

Applicants are invited for a tenured appointment to a Chair in Mathematics vacant from mid-1983 as a result of the resignation of Professor T. R. Speed. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of New South Wales, Sydney**  
**LECTURER - DEPARTMENT OF APPLIED MATHEMATICS**

School of Mathematics. Applicants should hold a PhD degree in applied mathematics and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of New South Wales, Sydney**  
**LECTURER - DEPARTMENT OF APPLIED MATHEMATICS**

School of Mathematics. Applicants should hold a PhD degree in applied mathematics and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The Australian National University**  
**PROFESSORIAL FELLOW IN ETHNOBOTANY**

Department of Prehistory. Applicants should hold a PhD degree in a relevant field and have a distinguished record in the field of comparative studies in society and history. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Tasmania**  
**CONTRACT LECTURER: DESIGN-IN-WOOD**

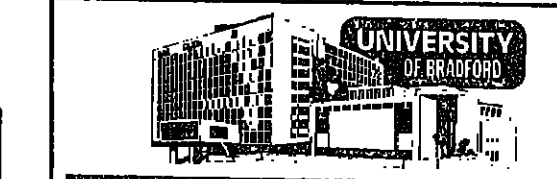
Applications are invited for a full-time Lecturer position in the School of Art. The position is a three-year contract basis from 1 March 1983 and will involve approximately 12 contact hours per week. Candidates must be practising professional woodworkers with experience in design and making in the wood products furniture field and should have a teaching experience. The appointee will teach the area of 3-dimensional design within the design and wood section of the Bachelor of Fine Arts course. Teaching involvement and administrative duties in the school will be expected. Commensurate salary will be in the rate of one-half of a point within the Lecturer's range. For information about academic aspects of the post contact the Director of the School of Art, The University of Tasmania, 100 Collins Street, Hobart, Tasmania. Applications should include curriculum vitae, 12-20 slides of recent work in the relevant field, names and addresses of two professional referees who may be contacted. Appointment conditions and information may be obtained from the Staff Officer (Tel: 061 250 2000). Applications close with the Registrar, University of Tasmania, Box 255, Hobart, Tasmania, Australia 7001, on 29 January 1983.

**The University of Newcastle**  
**LECTURER - DEPARTMENT OF CHEMISTRY**

The successful applicant is required to teach and supervise research in the field of Chemistry. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

### Other classifications

Exhibitions  
Awards  
Conferences and Seminars  
Courses  
Personal  
For Sale and Wanted  
Holidays and Accommodation



**CHAIR IN COMPUTER SCIENCE**

Applications are invited for this newly established post. Further particulars from the Registrar and Secretary, University of Bradford, West Yorkshire BD7 1DP. Closing date for receipt of applications 28th February, 1983.

**UNIVERSITY OF EXETER**  
**CHAIR OF PURE MATHEMATICS**

Applications are invited for the Chair of Pure Mathematics following the retirement of Professor D. R. F. FRS. The post is tenable from 1 October 1983. Preference may be given to applicants with a proven research record in the areas of algebra, algebraic geometry, number theory, harmonic analysis or combinatorics but other areas of research may also be considered. Salary on the agreed professional range, current minimum £16,515 p.a. Further particulars are available from the Academic Registrar and Secretary, University of Exeter, Northcote House, The Queen's Drive, Exeter EX4 4JL. Closing date for receipt of applications (12 copies, overseas candidates one copy), 20 February 1983.

**University of Surrey**  
**CHAIR IN MATHEMATICS (Ref. 1)**

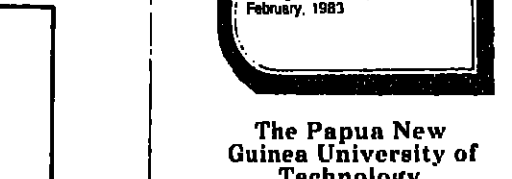
Applications are invited for a tenured appointment to a Chair in Mathematics vacant from mid-1983 as a result of the resignation of Professor A. L. Blakers. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**POST-DOCTORAL RESEARCH FELLOW - TEMPORARY USE OF COMMUNICATIONS SATELLITES**

Applications are invited for appointment to the above position for one year to commence as early as possible in 1983 to carry out research on the University Use of Communications Satellites as part of a project in the Department of Communications Studies, Education, Law, Engineering and other relevant fields. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Auckland**  
**PSYCHOLOGY - SENIOR LECTURERSHIP**

Applicants must have a PhD in Psychology and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.



**The Papua New Guinea University of Technology**

Department of Accounting and Business Studies. Applications are invited for the post of Professor and Head of Department. Further particulars from the Registrar and Secretary, University of Bradford, West Yorkshire BD7 1DP. Closing date for receipt of applications 28th February, 1983.

**UNIVERSITY OF EXETER**  
**CHAIR OF PURE MATHEMATICS**

Applications are invited for the Chair of Pure Mathematics following the retirement of Professor D. R. F. FRS. The post is tenable from 1 October 1983. Preference may be given to applicants with a proven research record in the areas of algebra, algebraic geometry, number theory, harmonic analysis or combinatorics but other areas of research may also be considered. Salary on the agreed professional range, current minimum £16,515 p.a. Further particulars are available from the Academic Registrar and Secretary, University of Exeter, Northcote House, The Queen's Drive, Exeter EX4 4JL. Closing date for receipt of applications (12 copies, overseas candidates one copy), 20 February 1983.

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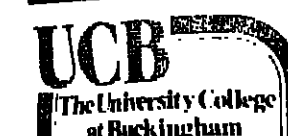
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**The University of Auckland**  
**PSYCHOLOGY - SENIOR LECTURERSHIP**

Applicants must have a PhD in Psychology and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

### Universities continued



**ASSISTANT ADMISSIONS OFFICER**

Applications are invited for the post of Assistant Admissions Officer. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**UNIVERSITY OF PAPUA NEW GUINEA**

Department of Accounting and Business Studies. Applications are invited for the post of Professor and Head of Department. Further particulars from the Registrar and Secretary, University of Bradford, West Yorkshire BD7 1DP. Closing date for receipt of applications 28th February, 1983.

**UNIVERSITY OF EXETER**  
**CHAIR OF PURE MATHEMATICS**

Applications are invited for the Chair of Pure Mathematics following the retirement of Professor D. R. F. FRS. The post is tenable from 1 October 1983. Preference may be given to applicants with a proven research record in the areas of algebra, algebraic geometry, number theory, harmonic analysis or combinatorics but other areas of research may also be considered. Salary on the agreed professional range, current minimum £16,515 p.a. Further particulars are available from the Academic Registrar and Secretary, University of Exeter, Northcote House, The Queen's Drive, Exeter EX4 4JL. Closing date for receipt of applications (12 copies, overseas candidates one copy), 20 February 1983.

**UNIVERSITY OF SURREY**  
**CHAIR IN MATHEMATICS (Ref. 1)**

Applications are invited for a tenured appointment to a Chair in Mathematics vacant from mid-1983 as a result of the resignation of Professor A. L. Blakers. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**POST-DOCTORAL RESEARCH FELLOW - TEMPORARY USE OF COMMUNICATIONS SATELLITES**

Applications are invited for appointment to the above position for one year to commence as early as possible in 1983 to carry out research on the University Use of Communications Satellites as part of a project in the Department of Communications Studies, Education, Law, Engineering and other relevant fields. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**The University of Auckland**  
**PSYCHOLOGY - SENIOR LECTURERSHIP**

Applicants must have a PhD in Psychology and have appropriate teaching and professional experience. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**UNIVERSITY OF PAPUA NEW GUINEA**

Department of Accounting and Business Studies. Applications are invited for the post of Professor and Head of Department. Further particulars from the Registrar and Secretary, University of Bradford, West Yorkshire BD7 1DP. Closing date for receipt of applications 28th February, 1983.

**UNIVERSITY OF EXETER**  
**CHAIR OF PURE MATHEMATICS**

Applications are invited for the Chair of Pure Mathematics following the retirement of Professor D. R. F. FRS. The post is tenable from 1 October 1983. Preference may be given to applicants with a proven research record in the areas of algebra, algebraic geometry, number theory, harmonic analysis or combinatorics but other areas of research may also be considered. Salary on the agreed professional range, current minimum £16,515 p.a. Further particulars are available from the Academic Registrar and Secretary, University of Exeter, Northcote House, The Queen's Drive, Exeter EX4 4JL. Closing date for receipt of applications (12 copies, overseas candidates one copy), 20 February 1983.

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**The University of Papua New Guinea**  
**MEDICAL OFFICER/ DIRECTOR, UNIVERSITY HEALTH SERVICES**

Applications are invited for the post of Medical Officer/Director, University Health Services. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**UNIVERSITY OF PAPUA NEW GUINEA**

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**The University of Papua New Guinea**  
**SENIOR TECHNICAL OFFICER**

Applications are invited for the post of Senior Technical Officer. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**UNIVERSITY OF PAPUA NEW GUINEA**

Department of Accounting and Business Studies. Applications are invited for the post of Professor and Head of Department. Further particulars from the Registrar and Secretary, University of Bradford, West Yorkshire BD7 1DP. Closing date for receipt of applications 28th February, 1983.

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**The University of The South Pacific**  
**LECTURER/SENIOR LECTURER IN AGRICULTURAL ENGINEERING (82/86)**

Applications are invited for the post of Lecturer/Senior Lecturer in Agricultural Engineering. The position is available from July 1983 and appointment will be for a fixed term of three years. 11 March 1983.

**UNIVERSITY OF PAPUA NEW GUINEA**

Department of Accounting and Business Studies. Applications are invited for the post of



## Universities continued

University of London  
Imperial College of Science and Technology  
DEPARTMENTAL ADMINISTRATOR

Required to organise and control administrative and technical services of the Department of Physics.

Applicants should be in the age range 35-50 with a good degree preferably in a science or engineering discipline. The successful candidate will have a minimum of 5 years' experience in a similar post, including the control of a budget.

Further particulars available from the Personnel Office, Imperial College, London SW7 2BZ. Closing date for applications: 1 February 1983.

University of Oxford  
Lady Margaret Hall  
TEMPORARY TUTORIAL FELLOWSHIP IN ENGLISH

The College invites applications for a temporary tutorial fellowship in English and American literature. The successful candidate will be expected to teach in the College and to supervise the work of the Tutorial Fellows.

Further details are available from the College Secretary, Lady Margaret Hall, Oxford OX2 0BA. Closing date for applications: 15 February 1983.

University of Oxford  
Wolfson College  
GRADUATE AWARDS

The College provides a number of Graduate Awards to help students with financial difficulties. Each award is for up to £1,000. Further details are available from the College Secretary, Wolfson College, Oxford OX2 0BA. Closing date for applications: 15 February 1983.

## Polytechnics

SHEFFIELD CITY POLYTECHNIC  
HEAD OF DEPARTMENT OF CHEMISTRY

The Department is one of the leading Departments of Chemistry in the public sector. The courses offered include those leading to a BSc (Hons) Chemistry and a BSc (Hons) Applied Chemistry. A wide range of postgraduate research work is in progress. Applicants must possess appropriate qualifications and experience. Experience in industry or research is highly desirable. A commitment to part-time and sandwich education is essential.

Salary: Head of Department Grade VI currently £16,867 to £17,400 p.a.

## DEPARTMENT OF MATHEMATICS, STATISTICS AND OPERATIONAL RESEARCH

## HEAD OF DEPARTMENT - GRADE V

Applications are invited for the post of Head of Mathematics within the Department of Mathematics, Statistics and Operational Research. The successful candidate will be responsible for the teaching of Mathematics and Statistics to students on a wide range of degree and diploma courses. Experience in industry or research is highly desirable. A commitment to part-time and sandwich education is essential.

Salary: Head of Department Grade V currently £14,476 to £15,000 p.a.

Application forms and further details from the Personnel Office, Sheffield City Polytechnic (Dept. 108), Hallam Road, Sheffield S10 2BP or by telephone (0742) 39911, Ext. 367. Completed forms to be returned by 31 January 1983.

Sheffield City Polytechnic is an Equal Opportunities Employer

DEPARTMENT OF EDUCATION STUDIES  
RESEARCH ASSISTANT/DEMONSTRATOR

(£5,355-£5,580-£5,808-£6,039)

Good honours graduates desirous of working for a higher degree are invited to apply for a three year full time research appointment in respect of the following project: "Concept Development in Social Studies in Primary Schools" (Ref. E160).

Further details and form of application from The Staff Office, Trent Polytechnic, Goldsmith House, Goldsmith Street, Nottingham NG1 4BU.

Closing date 28 January 1983.

TRENT POLYTECHNIC  
NOTTINGHAM

## PAISLEY COLLEGE

A Scottish Central Institution

## PROFESSOR/HEAD OF DEPARTMENT OF SOCIAL STUDIES

SALARY £18,117 p.a.

This post will become vacant in January following the retirement of Professor H. N. Sheldon. The Department of Social Studies offers courses in Social Work, Social Administration, Psychology, Health Visiting, Careers Guidance and Alcohol Studies at honours degree, postgraduate or post qualification levels.

Applicants should, therefore, be well qualified academically in an appropriate discipline and be able to guide and develop research and teaching within the Department. Professional or Research experience in a branch of applied Social Studies, e.g. Social Work/Social Services, Health Service/Health Education, Housing, Community Development, etc., would be advantageous.

Application forms and further particulars are available from the Personnel Officer, Paisley College of Technology, High Street, Paisley PA1 2NE (tel: 041-887 1241 ext. 230). Closing date for applications: 28th January, 1983.

Coláiste na hOllscoile Corcaigh  
University College Cork

## COMPUTER SCIENCE

Applications are invited for two full-time permanent posts as Assistant Lecturer/College Lecturers in the Department of Computer Science.

The salary scales are:

COLLEGE LECTURER:  
IRE10,677 - IRE12,490 Bar IRE12,514 - IRE15,996 p.a.

ASSISTANT LECTURER:  
IRE9,291 - IRE10,078 p.a.

Application forms and further details of the posts may be obtained from the undersigned.

Latest date for receipt of applications is Friday 18th February, 1983.

M. F. Kelleher  
Secretary

ROBERT GORDON'S  
INSTITUTE OF TECHNOLOGY  
Aberdeen

## LECTURER IN PHARMACEUTICS

To be responsible for the teaching of Dispensing and Pharmaceutical legislation. Pharmacy graduate preferably with teaching, industrial or research experience although recent honours graduate also considered.

Salary Range: £7956 - £12,561 per annum.

Further details from Secretary, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen AB9 1FR. Tel: 0224 833611.

Teesside Polytechnic  
SECTION LIBRARIAN  
GRADED AT S01/2,  
POST REFERENCE P.L.Y.08

A Section Librarian is required for the Library and Information Services within the Polytechnic. Candidates must be prepared to work in any section of the Library or its Operational Services. Experience in the field of Library or Information Services is essential.

Salary: £8,658-£10,071 per annum.

Application forms and further particulars are available from the Personnel Office, Teesside Polytechnic, Middlesbrough, Cleveland, Teesside, Middlesbrough TS1 1BA.

Closing date for applications: 11 February 1983.

TRENT POLYTECHNIC  
NOTTINGHAM

## Polytechnics continued

Polytechnic of Central London  
SCHOOL OF LINGUISTICS AND LANGUAGE STUDIES

Applications are invited from suitably qualified persons for the post of Lecturer in the School of Linguistics and Language Studies. The successful applicant will have research and teaching interests in the field of Linguistics, particularly in the areas of Phonetics, Phonology, Morphology and Semantics. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Linguistics, particularly in the areas of Phonetics, Phonology, Morphology and Semantics, will be essential. A PhD in Linguistics or a related field is required.

Application forms and further particulars are available from the Personnel Office, Polytechnic of Central London, Regent Street, London W1R 8AL. Tel: 01-583 6121. Closing date: 15th February 1983.

## Research &amp; Studentships continued

## Research &amp; Studentships

University of Kent  
at Canterbury  
Social Psychology Research Unit  
RESEARCH FELLOW

Applications are invited for a post of Research Fellow in the Social Psychology Research Unit. The successful candidate will be responsible for the teaching of Social Psychology and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Social Psychology will be essential. A PhD in Social Psychology or a related field is required.

Application forms and further particulars are available from the Personnel Office, University of Kent, Canterbury, Kent. Tel: 01843 333333. Closing date: 15th February 1983.

University of Cambridge  
RESEARCH STUDENTSHIPS

St Edmund's House, Cambridge CB3 0JN, offers one or two Research Studentships for the year 1983-84. The successful candidate will be responsible for the teaching of Social Psychology and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Social Psychology will be essential. A PhD in Social Psychology or a related field is required.

Application forms and further particulars are available from the Personnel Office, St Edmund's House, Cambridge CB3 0JN. Tel: 0223 333333. Closing date: 15th February 1983.

The Department of Health and Social Security  
RESEARCH STUDENTSHIPS FOR NURSES

The Department of Health and Social Security offers Research Studentships for nurses. The successful candidate will be responsible for the teaching of Social Psychology and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Social Psychology will be essential. A PhD in Social Psychology or a related field is required.

Application forms and further particulars are available from the Personnel Office, Department of Health and Social Security, London. Tel: 01-276 333333. Closing date: 15th February 1983.

## Personal

IMMEDIATE ADVANCES £100 to £200,000. Writing fees to £10,000. Royal Post Ltd. 481 284 or 489 546. 1000

## Holidays and Accommodation

CORNISH CENTRE: superb holiday homes, Cornwall. Tel: 0579 62562

## Research &amp; Studentships continued

The University of Leeds  
School of Education  
RESEARCH ASSISTANT

Applications are invited for two posts of Research Assistant in the School of Education. The successful applicant will have research and teaching interests in the field of Education, particularly in the areas of Curriculum Studies, Educational Research and Educational Policy. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Education, particularly in the areas of Curriculum Studies, Educational Research and Educational Policy, will be essential. A PhD in Education or a related field is required.

Application forms and further particulars are available from the Personnel Office, University of Leeds, Leeds. Tel: 0113 275 3333. Closing date: 15th February 1983.

Preston Health Authority  
North West Nursing Staffing Levels Project  
NURSING RESEARCH OFFICER

South West Nurse Grade 4, £7,011-£8,442 p.a. (incl. O.T.). The post is full-time and involves research and teaching in the field of Nursing. The successful candidate will be responsible for the teaching of Nursing and for the supervision of research students.

Qualifications and experience in the field of Nursing will be essential. A PhD in Nursing or a related field is required.

Application forms and further particulars are available from the Personnel Office, Preston Health Authority, Preston. Tel: 0772 333333. Closing date: 15th February 1983.

Kingston Polytechnic  
School of Computing and Computer Studies  
RESEARCH POST IN NUMERICAL ANALYSIS/CONTROL SYSTEMS

A person with a background in numerical analysis and control systems is required for a research post in the School of Computing and Computer Studies. The successful candidate will be responsible for the teaching of Numerical Analysis and Control Systems and for the supervision of research students.

Qualifications and experience in the field of Numerical Analysis and Control Systems will be essential. A PhD in Numerical Analysis or a related field is required.

Application forms and further particulars are available from the Personnel Office, Kingston Polytechnic, Kingston. Tel: 0181 545 3333. Closing date: 15th February 1983.

University of London  
INSTITUTE OF HISTORICAL RESEARCH

Research Fellowships 1983-84. Value £5,500 p.a. plus £1,000 p.a. for research expenses. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, University of London, London. Tel: 01-276 333333. Closing date: 15th February 1983.

Victoria University of Wellington  
POST-DOCTORAL FELLOWSHIPS

The main purpose of the awards is to provide financial support for post-doctoral research. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, Victoria University of Wellington, Wellington. Tel: 04-488 3333. Closing date: 15th February 1983.

The Royal Society of Edinburgh  
RESEARCH FELLOWSHIPS

Applications are invited for post-doctoral research fellowships. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

## Fellowships

West Glamorgan Institute of Higher Education  
Visiting Fellowships  
Art & Design

WGHE is consolidating its position as a leading vocational art and design centre and in furthering this aim, applications are invited for two fixed term Visiting Fellowships from practising Artists.

## Architectural Stained Glass

WGHE provides a unique course in this area of study which has an international reputation. The Visiting Fellow will work with students following a 3 year full-time DATEC Higher Diploma and assist with research at M.Phil level.

## Illustration with Graphic Design

Illustration has been taught for many years at WGHE. The Visiting Fellow will work closely with students and will be expected to encourage links between college and industrial design projects.

Visiting Fellows will be paid on a pro-rata basis of a Lecturer/Senior Lecturer's salary and will be subject to the same terms and conditions of staff, but for a specific period of time.

Application forms and further details are available from the Principal, West Glamorgan Institute of Higher Education, Townhill Road, Swansea SA2 0UT (a.s.a. please). Closing date for applications: 11th February 1983.

Middlesex Polytechnic  
RESEARCH FELLOW

Research Fellowships are available in the field of Social Psychology. The successful candidate will be responsible for the teaching of Social Psychology and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Social Psychology will be essential. A PhD in Social Psychology or a related field is required.

Application forms and further particulars are available from the Personnel Office, Middlesex Polytechnic, Hendon. Tel: 0181 275 3333. Closing date: 15th February 1983.

University of Oxford  
JUNIOR RESEARCH FELLOWSHIP IN FRENCH

The University of Oxford offers a Junior Research Fellowship in French. The successful candidate will be responsible for the teaching of French and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of French will be essential. A PhD in French or a related field is required.

Application forms and further particulars are available from the Personnel Office, University of Oxford, Oxford. Tel: 01865 333333. Closing date: 15th February 1983.

Gonville and Caius College  
Cambridge  
VISITING FELLOWSHIP

The Council of Gonville and Caius College, Cambridge, offers a Visiting Fellowship for men and women. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, Gonville and Caius College, Cambridge. Tel: 0223 333333. Closing date: 15th February 1983.

The Royal Society of Edinburgh  
RESEARCH FELLOWSHIPS

Applications are invited for post-doctoral research fellowships. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

## Colleges of Further Education

Richmond upon Thames Education Committee  
RICHMOND UPON THAMES COLLEGE (TERTIARY)Appointment of Assistant Principal (Group 7)  
Re-Advertisement

Applications are invited for the appointment of Assistant Principal (Group 7) of this tertiary college. The vacancy arises from the promotion of the previous holder to be Principal of another college. The college was established in 1977 as the first tertiary college in the Greater London area. All academic and vocational provision for 16-19 year olds in the Borough is concentrated within the college; some vocational courses are also offered for older students.

Candidates must have good academic qualifications, relevant teaching experience, and proven management ability, including some time-keeping responsibility.

The successful applicant will be required to set up systems for monitoring and supporting the progress and welfare of students, and for the teaching of a Pastoral Curriculum (Careers and Health Education, and Life, Social and Learning Skills) to mixed ability tutor groups. The person appointed will also have particular responsibility for the attainment of women students.

Current salary: £18,354 (inclusive of Outer London Allowance).

Further particulars and forms, returnable by Friday, 28th January, 1983, available from the Director of Education, Regal House, London Road, Twickenham, Middlesex TW1 3QB.

Previous applications will be automatically re-considered.

## Colleges of Higher Education

County of Avon  
Bath College of Higher Education  
Lecturer Grade II

Applications are invited for the post of Lecturer Grade II in the Department of Mathematics. The successful candidate will be responsible for the teaching of Mathematics and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Mathematics will be essential. A PhD in Mathematics or a related field is required.

Application forms and further particulars are available from the Personnel Office, Bath College of Higher Education, Bath. Tel: 01225 333333. Closing date: 15th February 1983.

University of London  
INSTITUTE OF HISTORICAL RESEARCH

Research Fellowships 1983-84. Value £5,500 p.a. plus £1,000 p.a. for research expenses. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, University of London, London. Tel: 01-276 333333. Closing date: 15th February 1983.

Gonville and Caius College  
Cambridge  
VISITING FELLOWSHIP

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Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, Gonville and Caius College, Cambridge. Tel: 0223 333333. Closing date: 15th February 1983.

The Royal Society of Edinburgh  
RESEARCH FELLOWSHIPS

Applications are invited for post-doctoral research fellowships. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Hampshire County Council  
Southampton College of Higher Education  
LECTURER IN CERAMICS

The Department of Ceramics at Southampton College of Higher Education offers a Lectureship in Ceramics. The successful candidate will be responsible for the teaching of Ceramics and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Ceramics will be essential. A PhD in Ceramics or a related field is required.

Application forms and further particulars are available from the Personnel Office, Southampton College of Higher Education, Southampton. Tel: 0703 333333. Closing date: 15th February 1983.

Ealing College of Higher Education  
School of Catering  
L1/1 IN HOTEL AND CATERING ADMINISTRATION (MANPOWER) (RE-ADVERTISEMENT)

Applications are invited for the post of Lecturer in the School of Catering. The successful candidate will be responsible for the teaching of Catering and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of Catering will be essential. A PhD in Catering or a related field is required.

Application forms and further particulars are available from the Personnel Office, Ealing College of Higher Education, Ealing. Tel: 0181 333333. Closing date: 15th February 1983.

University of Cambridge  
Darwin College

The Governing Body of Darwin College, Cambridge, offers a Research Fellowship for men and women. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

Application forms and further particulars are available from the Personnel Office, Darwin College, Cambridge. Tel: 0223 333333. Closing date: 15th February 1983.

The Royal Society of Edinburgh  
RESEARCH FELLOWSHIPS

Applications are invited for post-doctoral research fellowships. The successful candidate will be responsible for the teaching of History and for the supervision of research students. The post is full-time and involves teaching and supervision of research students.

Qualifications and experience in the field of History will be essential. A PhD in History or a related field is required.

## Roehampton Institute

Digby Stuart  
Roehampton  
Southlands  
Whitlands.

## LECTURESHP IN HISTORY

Applications are invited from recent graduates in the discipline who should also possess a higher degree or be able to demonstrate proven research interests. Preference will be given to candidates with teaching and research interests in any area of British and/or European history since 1700. The person appointed will also be expected to make a contribution to the teaching of the Department's Foundation Year survey course in European history and to the development of post-graduate degree courses.

Salary (L1 scale) £6,856-£11,022 plus London Allowance £834 per annum.

Further particulars and application forms may be obtained from: R. A. Fennell, Assistant Secretary, Roehampton Institute of Higher Education, Roehampton Building, Digby Stuart College, Roehampton Lane, London SW15 5PL.

Closing date for applications: Friday, 4 February, 1983.

La Sainte Union  
College of Higher Education  
Southampton

## DEPUTY PRINCIPAL

Applications are invited for the post of Deputy Principal for 1 September, 1983. This medium sized mixed Roman Catholic college, administered by the Sisters of La Sainte Union, offers degree courses of BEd, BSc and BA, validated by the University of Southampton. In-service provisions include a degree and several diplomas for serving teachers. The college shares in the work of the Portsmouth Diocesan Religious Education Centre, situated on the campus.

Applicants are expected to have appropriate qualifications and experience and to be practising Roman Catholics.

For salary purposes the college is Grade VI. Further information from the Principal's secretary at La Sainte Union College of Higher Education, The Avenue, Southampton SO9 5HB. Telephone Southampton 20761.

Letters of application (no forms) to be received no later than 15th February, 1983.

## Bulmershe College of Higher Education

## LECTURER IN COMMUNITY NURSING

(Salary scale: £6,855-£11,022)

Applications are invited from District Nurse Tutors to contribute to an existing District Nursing Course and to assist in the development of further post-registration courses in the areas of District Nursing and Health Visiting.

Further particulars and application forms may be obtained from the Deputy Principal (THES1), Bulmershe College of Higher Education, Woodlands Avenue, Earley, Reading RG6 1HY. Tel: (0734) 663367, ext. 228.

Completed forms to be returned by February 7th 1983, Berkshire County Council is an equal opportunity employer.

## LIVERPOOL INSTITUTE OF HIGHER EDUCATION

S. KATHERINE'S COLLEGE  
PRO-RECTOR  
HEAD OF S. KATHERINE'S COLLEGE

Applications are invited from men or women, lay or cleric who are communicant members of the Church of England. The appointment, which will be effective from 1st September, 1983, will be within Burnham F.E. Group 8 Vice-Principal Scale £18,786.

Further details are available from the Rector, Liverpool Institute of Higher Education, S. Katherine's College, Strand Park Road, PO Box 6, Liverpool L16 9JD.

Closing date for completed applications 7th February, 1983.



**STATE OF QATAR**  
University of Qatar



# Don's diary

## Monday

Up at 6.30am as usual for another 8.00 lecture. Funny how quickly one gets used to the early start. And to the three-hour long lectures! What takes much more getting used to is the informality of the students. My injunction to interrupt the lectures for questions and clarification is taken to the letter, with most interruptions beginning "Frank...". Three-hour lectures have one nice feature, the hourly coffee breaks provide an opportunity to get to know the students on a social basis, and to tease out the points someone was reluctant to raise in the lecture. Spend the afternoon in my office collating material on Finnish immigrants to Sweden. Frequent interruptions by colleagues who want advice on points of English grammar. Promised lots of acknowledgments in future publications as a *quid pro quo*. Home to our village house to discover that the black sticker on the letter box doesn't want that we're on someone's death list, but that we simply don't want any newspapers delivered.

## Tuesday

Another early start. Not a lecture today, but a question and answer session for Thursday's microeconomics exam. Find on getting to the lecture theatre that the overhead projector is a dud. So are all the projectors in adjacent theatres. All the more infuriating since I had combed the building the previous week and found that over three quarters of all the projectors were out of action. The appropriate authorities had promised speedy action, just promised. Resolve to get a colleague to take the matter up. It's difficult to be both effective and angry when the janitor's English is so poor. Students lead me to an audio visual store room, spend five minutes finding out the correct code for the electronic lock, and then discover that the two projectors inside are also broken. Begin the session with a 15-minute coffee break!

## Wednesday

A day at home spent on the Finnish immigration research. The Finns in Sweden have many features in common with the Irish in Britain. But the Finns are much better documented. The wealth of data on the Finns in Sweden is a byproduct of the *permanumer* system. Everyone here is allocated a number by the population registration people. At least in theory. Decide to find out how comprehensive the system is by checking if my family are registered. Contact the local church and find I'm registered, but wife and daughter are not. And we've been here 10 months! Wonder just how good all my data on the Finns is as a result. Work abandoned in the afternoon when the neighbours' children arrive to play. Embryonic anarchists. Resolve to work that night when all is quiet. Duller on two of the three television channels, means little temptation from that quarter.

## Thursday

The dreaded (by the students) microeconomics exam. A five-hour long exam to go with the three-hour long lectures. Students come well prepared with flasks of coffee, fruit, chocolate and dictionaries. Having got it off, I idly get to return 90 minutes later to sort out any queries that have arisen. Go round each student individually. Queries range from "what do you mean?" (the question asked for a definition) to "what do we do this in lectures?" (quitting the hall, find a parking ticket, a shiny car, I've parked in a student's car park rather than a staff

one. Not really my fault since all the notices are in Swedish. With typical Nordic efficiency the parking ticket is in the form of a bank giro for ease of payment. Decide to ignore it, nonetheless since our car is British registered.

## Friday

Begin the correction process. The frustrations of the examiner are universal: illegible handwriting, *non sequiturs* and simple omission of sections of a question. Begin the process at home but go in to Lund at midday to replenish alcohol supplies for the weekend. Alcohol is sold in Sweden only through the Systembolaget, the state-run liquor monopoly. Our village is too small to boast a branch, though the hardware shop will take orders and supply the next day. No alcohol is sold on Saturdays or Sundays, so the weekend's consumption must be planned in advance. But Friday is not the day to do the planning. Spend 25 minutes queuing for two bottles. Console myself that they're cheaper than in Britain. Big advantage of the state monopoly, they can purchase wine in such bulk they get it at a lower price than anyone else. Wine is cheap, spirits expensive. Conclusion, buy your spirits in Denmark, which is only 30 minutes away. Hardy persons are reputed to maintain stocks of the hard stuff in the left luggage lockers on the Danish side in case they run out over a weekend.

## Saturday

No lie-in this week. A "disputation" is being held in the economics department. It's the Swedish counterpart to the British oral examination for a doctorate. In theory it's open to all, and all can have a go at the candidate if he's still standing after the official "opponent" has done his job. Today's proceedings are surprisingly lively, with the candidate, an Iraqi defending a thesis on Middle Eastern oil, giving the opponent a rather hard time. Depart after two hours to relieve our baby-sitter, the public admitted to disputations doesn't include 18-month-old infants. Go through to Malmö for the rest of the morning, wander round the old town. Sign numerous petitions for the release of Lech Walesa, the saving of the whale, etc. See an English production of *Don Quixote* by the Actors Touring Company that evening. Even in Lund (population less than 50,000) they can attract a full house. And one that revels in the subtleties of the play.

## Sunday

Spend the morning correcting the exam scripts. Make final arrangements for this evening's two-day visit to Oslo. Driving to catch the hydrofoil to Copenhagen from where the Norwegian ferry departs, am surprised to see the snow poles positioned already on the minor roads about our village. Hadn't quite realized that winter was all that imminent. Peel a bonfire for the snow poles, bamboo-covered in fluorescent plastic. They proved invaluable on a few occasions last February as I returned from lectures, and just as valuable in the summer when we "rescued" a few from ditches to support a bumper crop of runner beans. Settle in to enjoy the two days before the next marathon lecture.

Frank Kirwan

The author is a lecturer in economics at the University of Strathclyde who is spending the year teaching at the University of Lund, Sweden.

One of the experiences of academics interested in policy, whether scientific, economic or social, is the occasional trip to some foreign capital for an international conference. When the invitation arrives I always feel pleasure. Somehow it confirms one's status as what international organizations call "experts". Since some of us spend quite a lot of time struggling to keep abreast of the various areas on which we are meant to be knowledgeable and feeling exceedingly inexperienced, it provides a boost to confidence.

Such an invitation conjures up the delights of Paris, Rome or New York for two or three days with those generous *per diems* that allow the participant to eat in expensive restaurants without feeling guilty and to slip into the latest exhibition in the long lunch hour. It also provides a good excuse to have a break from the office and rushing home to cook supper for the family. One thing that is certain about international conferences is that they are rarely tiring, unless you are the organizer.

Moreover, for those of us who pride ourselves about not being parochial and who believe quite genuinely that we have as much to learn from how we do the same, international conferences provide an opportunity to learn a great deal. The participants from government departments, employers' confederations, trade unions, research institutes and universities give the invitee the impression that he or she will make excellent contacts as well as participate in stimulating debate.

That at least is the theory. Somehow or other it never quite turns out like that. There are a variety of reasons why one's expectations are never quite fulfilled. First of all the physical surroundings are rarely conducive to good open debate and argument. Rows of people at behind large plaques saying Royaume-Unie, Yugoslavia, etc. and surrounded by the clutter of equipment for simultaneous translation.

Then there is the problem of language. It may sound chauvinistic for anyone British to claim that the day can be managed with a single language for such occasions with a great advantage because that is the only language that could be used in English. Nevertheless, the need for headphones and interpreters is desperately trying to keep up with the participants' speeches including

## Better to travel than to arrive



Tessa Blackstone

their jokes and obscure vocabularies is not conducive to easy communication. I find myself torn between headphones and relying on my rusty French and German. Occasionally I give up trying with either and follow the example of the Japanese delegates who can frequently be observed wearing headphones with the sound off so that they act as earmuffs. When "the flesh is weak but the spirit is there" is translated as "the meat is soggy but the alcohol is ready" who can blame the Japs.

The next problem is the official delegates, who turn up with a prepared speech which represents their government's position, usually self-congratulatory or defensive or both. The East Europeans are especially prone to this but they are by no means the only offenders. The chairpersons on these occasions are always too polite or perhaps too frightened that it will provoke an international incident to shut them up.

A not dissimilar problem is that of the fanatical purveyor of vested interests: the trade unionist, who thinks he is still at the negotiating table; the academic who believes that research is the answer to every problem; the employer with a one-track mind about the appalling consequences of government intervention. All of these characters can be found at

national conferences but when recognized by their fellow participants for what they are they can be more easily exposed and criticized than in international fora.

Occasionally the papers, which are circulated prior to international conferences are excellent. They make use of international comparisons to raise interesting and pertinent questions about the issues being discussed or they provide information about other countries which would be hard to track down and pull together by an individual or group in one of the countries concerned. But all too often they have a pap-like quality; pages and pages of generalities written in internationalism. This encourages a similarly empty debate at the conference.

This all sounds carping and perhaps I should admit that I do not like any kind of conference very much anyway. Moreover why keep accepting if one is going to bite the hand of one's friends in the international organizations, who feed us? But as with love affairs that are not working, it always seems best to keep trying and hoping for better things. I am still not so cynical as some colleagues, who treat these events as a mere swan.

The swanning aspect in any case has its limitations. There is the tedious of travelling weighed down by the double-space photo-copied papers for the conference itself plus a whole lot of other papers some individuals bring with them in bulk and insist on thrusting into your unwilling hands. The foreign cities themselves often turn out to be a bit of a disappointment.

Even the most exhilarating city has its limitations when explored alone. Some people can sit by themselves in smart restaurants developing their capacities as a gourmand. Others, like myself, would rather snatch a hot dog from a street stall than sit in isolation in a Michelin three star establishment.

I don't know what the solution is. I am sure we should not abandon these exercises in international contact and cooperation. But I am equally sure we need to look at their format and think out how to improve them. As a start I suggest we have to overcome our unwillingness to be forthright and critical of what people from other countries say. Learning from others will only take place when we stop being reticent about criticizing and questioning them as well as ourselves.

berwick Green.

A conspiracy theory of the world is a great comfort. What, however, is so arresting (sic) about the present assault upon the human values carried by the welfare state, and the universities as, surely, their proper guardians, is that there is nothing conspiratorial about the assault force and that they are, in fact, our own senior officers. A university community which allows these things to happen to it, as they say, only itself to blame. In this country, the long academic neglect of either class or intellectual interdependence combined with the deep absence in those communities most dedicated to the idea of community of mutuality, cooperation, lack of shyness, an honest respect for the innumerable varieties of human inquiry, ferment furiously to promote what Stefan Körner calls the "present tidal wave of hypocrisy and self-interest".

In our times and in our country, these rebellious poisons work in well-bred vegetables, and unseen ways. The call to the colours of criticism may be made by red, white, and blue alike, and without the harmonious satiric tones of either politics or self-interest. What is at issue is the intellectual defence of the best and noblest and most precious virtues of the polity, and their worst enemy is the killing new alliance of pure scholars, managers, and political freebooters.

As a great hero of English intellectual resistance, R. G. Collingwood, once said of those then at Oxford and Cambridge ignoring the lessons of the five-year-old Third Reich: "All my life I have been fighting against these things in the dark. Henceforth I shall fight in the daylight."

Fred Inglis

The author is reader in education at the University of Bristol.

## Need for policy research in field of higher education

Sir, - May I welcome your leader of January 7 and, on behalf of the Society for Research into Higher Education, wholeheartedly endorse your argument for sustained and sophisticated policy research in the field of higher education. Even though there is a financial squeeze the sums of public money invested deserve greater investigation but the public has a right to expect those policies to be monitored and evaluated once implemented. Currently we do not even keep adequate running records of the decisions made by such bodies as the Council for National Academic Awards and the National Advisory Body (NAB) which, quite as much as Government policy, fashion the education system we end up with.

As you say, it is unrealistic to suppose the society could on its own do the job required. It could, however, make a significant contribution. The society is peculiarly well placed: it is independent of any specific institution; its membership crosses the binary line both in terms of individual members and institutional membership; and a large proportion, if not all, of those studying higher education - the entrepreneurial professors, the mainstream academic researchers in higher education, the senior administrators in national agencies, and the enlightened representatives of special interest - all are gathered as members on equal terms under its umbrella.

Over the last two or three years the society has been turning itself into a more and more effective pressure group on the needs for research. Not only has the Leverhulme study brought together researchers, politicians, civil servants, journalists and other interested parties, but the council of the society has begun a series of meetings with politicians and administrators at a national level.

There are a number of key roles the society is now in a position to play. It could for instance relay the research needs of national institutions to the research community. In educational management which might form a model for more general use in our education system. Yours faithfully, DAVID WARREN PIPER, Chairman, Society for Research into Higher Education.

opposed to national systems. It has led such concerns as personnel management to be eclipsed, even at institutional level, by an over-exclusive study of the bureaucratic processes. In consequence the organizational structures and procedures recommended, being justified by detailed bureaucratic analysis but rather general analyses of the social system and individuals at work, tend to be based on rather incomplete considerations. Should this imbalance result in governance informed by policy study, political and economic disciplines alone to the exclusion of psychology and management, we are likely to finish up with a research problem system which can identify problems of institutional performance but will be weak in producing workable solutions. In the final analysis, the adaptation of our education system to new circumstances will depend upon the management of people, not of finance, not of regulations, not of buildings. The education system, apart from a few Big Science departments has very little else but people dealing with nothing but people and producing nothing but people. What education institutions are peculiarly short of compared with industry, and the armed and social services, are models of how they work.

As you said the University of London has chosen to allow its chair in higher education to fall into disuse. However, it has created a Centre for Staff Development in Higher Education. This and the Institute for Educational Technology at Surrey University are the only two centres working in the field. One or two other universities and polytechnics have individuals. The London centre is the only department which concerns itself with both the administrative and academic aspects of educational institutions. The enthusiasm of the university for this area of work can be gauged from its decision to withdraw its grant from the centre and require it to raise its total cost, by selling its services within the education system. It has thus cunningly given the centre an opportunity of pioneering radical approaches to educational management which might form a model for more general use in our education system.

Yours faithfully, DAVID WARREN PIPER, Chairman, Society for Research into Higher Education.

Sir, - Your call for a policy unit in higher education (*THESE*, January 7) is to be welcomed in theory, but in practice it is still vague. There is a need for a research based unit that can provide detailed, factual data which can be used by the main higher education decision-making bodies to help achieve what you describe as "the difficult choices that must be made in the 1980s".

What your leader tended to assume was that the quality of the applied decision-making process, including the inherent value judgment ingredient, would be improved if it rested on such a new supporting information source. The decisions of DES, UGC, NAB and CNA are directly or indirectly of a political nature. They also reflect a power relationship between the various sector and the policy aims of government itself. A new body, acting as an information source and policy guide should improve the validity and reliability of information on which decisions are made, but it will not cancel out the associated values of power and politics.

A more viable approach might be to have the controlling bodies in higher education refer to the source material of a new policy unit when making to justify and publish decisions. We should not fall into the belief that such a policy body could be the final arbiter or arbitrator of both positive, based information and its normative, or value based, interpretation, within the realities of actual political and economic life. Yours faithfully, MICHAEL NASH, School of Management, Leicester Polytechnic.

Letters for publication should arrive by Tuesday morning. They should be as short as possible and written on one side of the paper. The editor reserves the right to cut or amend.

## LETTERS TO THE EDITOR

### Conditions of work for UGC members

Sir, - In his talk to the Parliamentary and Scientific Committee, summarized in your issue of December 17, Dr Parkes did not refer to the conditions under which, from 1979 on, he as chairman and his fellow members of the University Grants Committee were obliged to carry out a task far more demanding than any could have expected when appointed.

In their eagerness to achieve good marks for "economics", the Department of Education and Science cut the staff of the UGC from around 125 to 75. Included in the general reduction was the particular downgrading at the top, where one deputy secretary and two under-secretaries were reduced to one under-secretary, at a period when a more sensitive government might have supposed that the UGC stood in need of the highest administrative skill available. The burden placed on Dr Parkes himself can be imagined, being the only full-time member of the UGC.

Which leads to consideration of

### Welsh merger

Sir, - Following your report on recent resolutions of the senate and council of the University of Wales Institute of Science and Technology about integration with University College, Cardiff, you published a letter (*THESE*, December 24) from the vice-chancellor (administration) and Dr Parkes himself can be imagined, being the only full-time member of the UGC.

Staff at the UWIST continue to be very disturbed by the old repeated suggestion that the UWIST asked to be "taken over". The principal of University College was accurate when in his statement to the UCC senate in February 1981 he reported that the principal of the UWIST had "suggested that UCC might consider the possibility of inviting UWIST to operate with it as a single institution, though no decision would take a significant time to bring about".

The council and senate of the UWIST share a deep concern at the absence of any academic plan aimed at achieving excellence in the proposed new college and at the lack of progress in resolving associated prerequisites. These include an agreed plan for a sites and buildings; the settlement of doubts about the financial position; the disposition of academic resources; and the resolution of personal positions.

The UWIST is proud of the progress that it has made since it entered the University of Wales in 1968 and of the high scholarly standing of its departments. The vocational courses closely linked to industry and the professions bring a unique blend of university education to Wales. The UWIST wishes to be assured, on the basis of plans for agreed academic development, that the new college is planned to provide a still better society.

It is recognized that inadequate buildings at the UWIST have handicapped progress. Although the commissioning of the Abercromby building in 1982 goes a long way to remedy the position, the immediate trigger for the creation of the new college was the promise of a further, substantial improvement.

The UWIST is concerned that the financial balance within the two colleges before a merger should be such that the security of the jobs of staff in the new college should be no less than in the other college separately. Proper arrangements on the personal positions of staff in difficult areas, such as headship of operations that are to be merged, must be agreed. In particular there must be an agreed plan for a single administration with proper jobs for all present employees, who wish to work for the new college.

The work of a technological university depends on a proper funding of supplies and materials to its departments. A continuation of the level now enjoyed by the UWIST departments must be secured.

The UWIST believes that the fulfilment of the desire to create something bold and imaginative is likely only on the basis of proper planning. F. HARRIS-JONES, Registrar, UWIST.

the role of the individual members. One trusts that the recent exercise is one-off, not to be repeated in depth, although with the demographic downturn soon to reinforce the economy drive, some continuation appears likely. That the UGC has assumed a more interventionist stance than in the old quinquennial days is surely irreversible.

If this is so, one should recognize that the gentlemanly conditions of earlier times are no longer appropriate. With few exceptions, members of the UGC are engaged in other full-time jobs, mainly as heads of university departments now themselves under stress.

Dr Parkes argues that knowledge of work in particular universities can largely be acquired as a by-product of an active, lively-minded practitioner such as himself when a professor of engineering. Up to a point of course this is true. But justice must be seen to be done and a brief encounter in the Athenaeum or at the Royal Society may not appear a

convincing basis for judgment to a department which has not been visited by the all-important subject sub-committee for several years.

In other words, membership of the UGC should be recognized as a part-time job, with academic salaries safeguarded but with some financial compensation available to the university departments directly affected by the necessary absences of one of their senior staff. In so far as non-university members are concerned, perhaps something a little better than the current derisory attendance allowance could be offered.

The pressures on the UGC (I write as a former member) could encourage the notion that the solution lies in handing the whole exercise over to the DES. I am sure that many share my view that this way lies disaster. To listen to Professor H. S. Ferns's "commercialization" proposals, except as an adjunct, would be more disastrous still. BARONESS WHITE, House of Lords.

### Truth about Cyril

Sir, - That such a short article, viz "Greeks Upset Slavs Over Cyrillic Tradition" (*THESE*, December 24) could contain so many mistakes is disturbing.

1. Macedonian is a language (and not a dialect of Bulgarian), since the Macedonian people so consider it. This is the yardstick for calling Flemish a language (and not a dialect of Dutch), Estonian (and not a dialect of Finnish), Norwegian (and not a dialect of Swedish or Danish).

2. Cyril (a saintly name taken only on his death-bed in Rome in 869 - before this he was called Constantine) and his elder brother Methodius were neither Macedonians nor Bulgarians. They were Greeks. Yet, born and brought up in Salonika (modern Thessaloniki), a town with a mixed Greek and Slavic population, they were fully conversant with both languages.

3. The Slavic tongue in Salonika was, linguistically speaking, a Macedonian dialect (and not a Bulgarian one).

4. The language devised by Constantine and Methodius was based primarily on this Macedonian dialect, but not identical with it. It was a literary language, artificial to the extent that every literary language is artificial.

5. This literary language is usually known in the English-speaking world as "Old Church Slavonic" (OCS). The Germans had a penchant for "Old Bulgarian", the Slovenes for "Old Slovene", whereas the Russians usually call it "Old Slavonic", as do the French. I am not aware of anyone who uses the appellation "Old Macedonian".

6. (The worst bloomer!) Constantine and Methodius did not invent the "Cyrillic" alphabet; they invented the Glagolitic alphabet, and it was this alphabet which was used to render the scriptures into OCS.

7. The so-called "Cyrillic" alphabet is a mere adaptation of the Greek script of the tenth century.

8. It is wrong to think of OCS as pertaining solely to the Macedonia/Bulgaria area. In its various recensions, OCS became the vehicle of literature of the Orthodox Slavs (and Romanians) throughout the Middle Ages and beyond. It has profoundly affected all these languages. Its influence on Russian has been such that Modern Russian owes more to OCS than it does to Russian!

Yours faithfully, JOHN DINGLEY, Department of Slavonic Languages, University of California, Los Angeles.

mark the scripts are used to making allowance for candidates who have either never covered the A level syllabus or not had any special teaching. So the advice tendered is to sit the exam; the other procedures are not easy ways out. Given this attitude, it is not hard to see that any attempt to abolish the entrance exam would meet with strong opposition from the dons themselves.

Secondly, has nobody been brave enough to state the most obvious reason why Oxbridge has a way above average proportion of privately-educated men? Different classes have different social aspirations. A mere reorganization of admittance procedures will hardly produce a change on the face of society. Constructively though, I would like to suggest to your readers that difficulties of getting into Oxford and Cambridge are always overestimated in schools.

Yours sincerely, WILLIAM ARTHURS, 46 Ascomb Road, York.

to be engineers. The models school students see of life styles and careers in the university (trained in school and in the media may not appeal to them). (A study completed in a local high school shows that students believe they make their own career choices). In the USA after the 1980s some middle and upper-class students did not see higher education as an answer.

Exposure to other models and fuller information will alter choices but they remain choices. JOHN KENYON, Université Sainte-Anne, Pointe-de-l'Église, Nouvelle-Becse, Canada.

Yours faithfully, JOHN KENYON, Université Sainte-Anne, Pointe-de-l'Église, Nouvelle-Becse, Canada.

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